



Form Approved
OMB No. 2010-0019
Approval Expires 12-31-89

OTS DOCUMENT RECEIPT OFC
92 DEC 30 AM 10:48

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Comprehensive Assessment Information Rule
REPORTING FORM

90-930000002

EPA-OTS



001023089N

When completed, send this form to:

Document Processing Center
Office of Toxic Substances, TS-790
U.S. Environmental Protection Agency
401 M Street, SW
Washington, DC 20460
Attention: CAIR Reporting Office

For Agency Use Only:

Date of Receipt: _____

Document
Control Number: _____

Docket Number: _____

CAIR REPORTING FORM CHECKLIST

THIS CHECKLIST IS NOT REQUIRED TO BE SUBMITTED,
IT IS FOR RESPONDENT'S INTERNAL USE ONLY

This form is intended to gather information on a specific listed substance that is manufactured, imported, or processed at one facility. Respondents must answer only those sections or specific questions required in the CAIR rule.

Respondents may use the same form each time they must report. The original copy of the form received by respondents should be kept on file and used to make copies of the questions required to be answered. These copies may then be circulated to those employees who will complete the form. Respondents must submit only one copy of each question rather than compiling parts of each question from various employees and submitting them together as one question.

Respondents need only supply information on the form that is "known to or reasonably ascertainable by" the respondent. Refer to the glossary for this definition. All reports with incomplete responses will be assessed as invalid and a Notice of Noncompliance Error Letter and a copy of the question will be sent to you for completion.

Before completing any portion of this form, please read the instruction booklet. The booklet contains general instructions on how to comply with the rule, supplemental instructions and sample answers for many questions, and a glossary containing definitions of key terms. Refer to the glossary whenever an unknown term appears to examine the definition provided.

If you cannot determine your reporting obligations, you should call the TSCA Assistance Office, U.S. EPA, at (202) 554-1404. To obtain additional forms, write to the TSCA Assistance Office (TS-779), ATTN: CAIR Form Request, Office of Toxic Substances, Environmental Protection Agency, Room E-543, 401 M St., SW, Washington, DC 20460, or call at (202) 554-1404.

BEFORE RETURNING YOUR COMPLETED CAIR FORM PLEASE CHECK THE FOLLOWING:

- ☒ 1. Have you completed and included Section 1 for each form you are submitting?
- ☒ 2. Have you submitted a standard chemical name and Chemical Abstract Service Registry Number for each chemical you are reporting on?
- ☒ 3. Does your submitted form include the original certification signatures as required for questions 1.06, 1.07, and 1.08?

- X 4. Have you submitted a completed separate form for each substance you are required to report on?
- X 5. Have you submitted a completed separate form for each site at which you manufacture, import, or process a listed substance?
- X 6. For each listed substance you must report on, have you reported on all activities you engage in at each site using the listed substance on the same reporting form?
- N/A 7. If you are claiming information as Confidential Business Information (CBI), have you completed the CBI substantiation form in Appendix II of the form for each category containing CBI? Failure to submit a completed CBI substantiation form with a reporting form containing CBI will result in the waiver of your claim of confidentiality.
- X 8. For each question that you are required to answer, have you responded by either providing the data, stating not applicable ("N/A"), or, if the question permits, stating unknown ("UK")?
- X 9. Have you right justified your responses to questions asked that require respondents to give a numeric response in a series of boxes (e.g., the answer "372" is entered as [0][0][3][7][2])?
- X 10. Have your responses been given in alpha, numeric or alpha-numeric form such as 3 million or 3,000,000? Responses must not be given in scientific notation such as 3×10^6 .
- X 11. If you needed additional space to report the required data, have you checked the continuation sheet box at the bottom of each page that requires additional space; attached additional copies of the specific questions of this form that contain additional information; and listed the attachments in Appendix I of the reporting form?

SECTION 1 GENERAL MANUFACTURER, IMPORTER, AND PROCESSOR INFORMATION

PART A GENERAL REPORTING INFORMATION

1.01 This Comprehensive Assessment Information Rule (CAIR) Reporting Form has been

completed in response to the Federal Register Notice of..... 02 22 88
mo. day year

CBI

☐ a. If a Chemical Abstracts Service Number (CAS No.) is provided in the Federal

Register, list the CAS No. 000584-84-9

b. If a chemical substance CAS No. is not provided in the Federal Register, list either (i) the chemical name, (ii) the mixture name, or (iii) the trade name of the chemical substance as provided in the Federal Register.

NA

(i) Chemical name as listed in the rule

(ii) Name of mixture as listed in the rule

(iii) Trade name as listed in the rule

c. If a chemical category is provided in the Federal Register, report the name of the category as listed in the rule, the chemical substance CAS No. you are reporting on which falls under the listed category, and the chemical name of the substance you are reporting on which falls under the listed category.

NA

Name of category as listed in the rule 2,4-TOLUENE DIISOCYANATE

CAS No. of chemical substance 000584-84-9

Name of chemical substance AS ABOVE

1.02 Identify your reporting status under CAIR by circling the appropriate response(s).

CBI Manufacturer 1

☐ Importer 2

Processor 3

X/P manufacturer reporting for customer who is a processor

X/P processor reporting for customer who is a processor

☐ Mark (X) this box if you attach a continuation sheet.

1.03 Does the substance you are reporting on have an "x/p" designation associated with it in the above-listed Federal Register Notice?

CBI ☒ Yes ☒ Go to question 1.04
☐ No ☐ Go to question 1.04

1.04 a. Do you manufacture, report, or process the listed substance and distribute it under a trade name(s) different than that listed in the Federal Register Notice? Circle the appropriate response.

CBI Yes 1.
☐ No ☒ 2

b. Check the appropriate box below: N/A

☐ You have chosen to notify your customers of their reporting obligations
Provide the trade name(s)

☐ You have chosen to report for your customers

☐ You have submitted the trade name(s) to EPA one day after the effective date of the rule in the Federal Register Notice under which you are reporting.

1.05 If you buy a trade name product and are reporting because you were notified of your reporting requirements by your trade name supplier, provide that trade name.

CBI Trade name
☐ Is the trade name product a mixture? Circle the appropriate response.
☒ Yes ☒ 1
No 2

1.06 Certification -- The person who is responsible for the completion of this form must sign the certification statement below:

CBI "I hereby certify that, to the best of my knowledge and belief, all information entered on this form is complete and accurate."

☐ Robyn Frank [Signature] 12/21/92
NAME SIGNATURE DATE SIGNED
Senior Environ. Compliance (802) 657-6982
TITLE TELEPHONE NO.
ENGINEER

☐ Mark (X) this box if you attach a continuation sheet.

NOTE: NA: NOT AVAILABLE
N/A: NOT APPLICABLE

1.07 Exemptions From Reporting -- If you have provided EPA or another Federal agency with the required information on a CAIR Reporting Form for the listed substance within the past 3 years, and this information is current, accurate, and complete for the time period specified in the rule, then sign the certification below. You are required to complete section 1 of this CAIR form and provide any information now required but not previously submitted. Provide a copy of any previous submissions along with your Section 1 submission.

CBI

☐

"I hereby certify that, to the best of my knowledge and belief, all required information which I have not included in this CAIR Reporting Form has been submitted to EPA within the past 3 years and is current, accurate, and complete for the time period specified in the rule."

N/A

_____ NAME	_____ SIGNATURE	_____ DATE SIGNED
_____ TITLE	(_____)_____ TELEPHONE NO.	_____ DATE OF PREVIOUS SUBMISSION

1.08 CBI Certification -- If you have asserted any CBI claims in this report you must certify that the following statements truthfully and accurately apply to all of those confidentiality claims which you have asserted.

CBI

☐

"My company has taken measures to protect the confidentiality of the information, and it will continue to take these measures; the information is not, and has not been, reasonably ascertainable by other persons (other than government bodies) by using legitimate means (other than discovery based on a showing of special need in a judicial or quasi-judicial proceeding) without my company's consent; the information is not publicly available elsewhere; and disclosure of the information would cause substantial harm to my company's competitive position."

N/A

_____ NAME	_____ SIGNATURE	_____ DATE SIGNED
_____ TITLE	(_____)_____ TELEPHONE NO.	

☐ Mark (X) this box if you attach a continuation sheet.

PART B CORPORATE DATA

1.09 Facility Identification

CBI Name ☒ GENERAL ELECTRIC CO
☐ Address LAKE SIDE AVE
 Street
 BURLINGTON
 City
 VT 05401-4985
 State Zip
 Dun & Bradstreet Number 00-200-3434
 EPA ID Number 002083434
 Employer ID Number 140689340
 Primary Standard Industrial Classification (SIC) Code 3424
 Other SIC Code
 Other SIC Code

1.10 Company Headquarters Identification

CBI Name ☒ GE CORPORATE HEADQUARTERS
☐ Address 3135 EASTON TURNPIKE
 Street
 FAIRFIELD
 City
 CT 06424-1111
 State Zip
 Dun & Bradstreet Number 00-136-7960
 Employer ID Number 14068934

☐ Mark (X) this box if you attach a continuation sheet.

CBI **Name** [] [] [] [] [] [] [] []

Address

N/A

[] [] [] [] [] [] [] [] [] []

Zip

Dun & Bradstreet Number[]-[]-[]-

CBI Name ROBYN FRANK

Title 3 R - ENVIRONMENTAL - ENGINEER

Address 0E- AERO3 PALM- LAKESTON- AVE

BURLETON 702

157 05407--498

Zie

Telephone Number(8)(0)(2)-(6)(5)(7)-(6)(9)(8)(2)

1.13 This reporting year is from [07] [88] to [72] [88]

No.

Year

No.

Year

☐ Mark (X) this box if you attach a continuation sheet.

1.14 Facility Acquired -- If you purchased this facility during the reporting year, provide the following information about the seller:

CBI Name of Seller [] [] [] [] [] [] [] [] [] [] [] [] [] [] []

[illegible]

City

City _____
 State Zip _____

State

Employer ID Number [][] [][] [][] [][] [][]
..... [][] [][] [][] [][] [][]
Mo. Day Year

Employer ID Number [] [] [] [] [] []
Date of Sale Mo. Day Year

[illegible]

Contact Person [] [] [] [] [] [] [] [] [] [] [] [] [] [] []
Telephone Number [] [] [] - [] [] [] - [] [] []

1.15 Facility Sold -- If you sold this facility during the reporting year, provide the following information about the buyer:

[illegible]

() Mailing Address [] [] [] [] [] [] [] [] [] [] Street

City

City _____
 State Zip _____

State ([] [] [] [] [] [])

Employer ID Number ([] [] [] [] [] [])

Day

Employer ID Number [] [] [] [] [] [] [] [] [] []
Date of Purchase [] [] [] [] [] [] [] [] [] []
Mo. Day

[illegible][illegible]

☐ Mark (X) this box if you attach a continuation sheet.

1.16 For each classification listed below, state the quantity of the listed substance that was manufactured, imported, or processed at your facility during the reporting year.

CBI

☐

Classification

Quantity (Kg yr)

Manufactured N/A

Imported N/A

Processed (include quantity repackaged) 117.0

Of that quantity manufactured or imported, report that quantity:

In storage at the beginning of the reporting year N/A

For on-site use or processing N/A

For direct commercial distribution (including export) N/A

In storage at the end of the reporting year

Of that quantity processed, report that quantity:

In storage at the beginning of the reporting year 117.0

Processed as a reactant (chemical producer) -0-

Processed as a formulation component (mixture producer) -0-

Processed as an article component (article producer) UK

Repackaged (including export) -0-

In storage at the end of the reporting year 117.0

NOTE: NA = NOT AVAILABLE

N/A = NOT APPLICABLE

☐ Mark (X) this box if you attach a continuation sheet.

PART C IDENTIFICATION OF MIXTURES

- 1.17 Mixture -- If the listed substance on which you are required to report is a mixture or a component of a mixture, provide the following information for each component chemical. (If the mixture composition is variable, report an average percentage of each component chemical for all formulations.)

CBI

☐

Component Name	Supplier Name	Average % Composition by Weight (specify precision. e.g., 45% ± 0.5%)
Polyether Polyol polymer	CONAP Inc	40.0 ± .5
XYLENE	OLEAN, N.Y. 14760	15.0 ± .5
TOLUENE, 2-4 DIISOCYANATE		0.5 ± .2
-UK- INERT		49.3 ± UNK
Total		100%

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 2 MANUFACTURER, IMPORTER, AND PROCESSOR VOLUME AND USE

2.01 State the total number of years, including the reporting year, that your facility manufactured, imported, or processed the listed substance.

CBI

☐

Number of years manufactured YR
 Number of years imported YR
 Number of years processed 20 YR

2.02 State the quantity of the listed substance that your facility manufactured, imported or processed during the corporate fiscal year preceding the reporting year.

CBI

☐

Year ending 12 12 17
Mo. Year

Quantity manufactured K
 Quantity imported K
 Quantity processed 117 K

2.03 State the quantity of the listed substance that your facility manufactured, imported or processed during the 2 corporate fiscal years preceding the reporting year in descending order.

CBI

☐

Year ending 12 12 17
Mo. Year

Quantity manufactured
 Quantity imported
 Quantity processed 117
 Year ending 12 12 17
Mo. Year

Quantity manufactured
 Quantity imported
 Quantity processed 117

☐ Mark (X) this box if you attach a continuation sheet.

2.04 State the quantity of the listed substance that your facility manufactured, imported or processed during the 3 corporate fiscal years preceding the reporting year in descending order.

CBI

☐ Year ending 17121817
Mo. Year

Quantity manufactured kg

Quantity imported kg

Quantity processed 5,85 Kg kg

Year ending 17121816
Mo. Year

Quantity manufactured kg

Quantity imported kg

Quantity processed 5,85 Kg kg

Year ending 17121815
Mo. Year

Quantity manufactured kg

Quantity imported kg

Quantity processed 5,85 Kg kg

2.05 Specify the manner in which you manufactured the listed substance. Circle all appropriate process types.

CBI

☐ Continuous process 1.

Semicontinuous process 2.

☒ Batch process (3)

☐ Mark (X) this box if you attach a continuation sheet.

2.06 Specify the manner in which you processed the listed substance. Circle all appropriate process types.

☐

Continuous process 1

Semicontinuous process 2

Batch process 3

2.07 State your facility's name-plate capacity for manufacturing or processing the listed substance. (If you are a batch manufacturer or batch processor, do not answer this question.)

☐

Manufacturing capacity NA kg

Processing capacity NA kg

2.08 If you intend to increase or decrease the quantity of the listed substance manufactured, imported, or processed at any time after your current corporate fiscal year, estimate the increase or decrease based upon the reporting year's production volume.

CBI

☐

	Manufacturing Quantity (kg)	Importing Quantity (kg)	Processing Quantity (kg)
Amount of increase	<u>NA</u>	<u>NA</u>	<u>-0-</u>
Amount of decrease	<u>NA</u>	<u>NA</u>	<u>UK</u>

☐ Mark (X) this box if you attach a continuation sheet.

2.09 For the three largest volume manufacturing or processing process types involving the listed substance, specify the number of days you manufactured or processed the listed substance during the reporting year. Also specify the average number of hours per day each process type was operated. (If only one or two operations are involved, list those.)

CBI

☐

Days/Year Average Hours/Day

Process Type #1 (The process type involving the largest quantity of the listed substance.)

Manufactured	<u>N/A</u>	<u> </u>
Processed	<u>150</u>	<u>6</u>

Process Type #2 (The process type involving the 2nd largest quantity of the listed substance.)

Manufactured	<u>N/A</u>	<u> </u>
Processed	<u>N/A</u>	<u> </u>

Process Type #3 (The process type involving the 3rd largest quantity of the listed substance.)

Manufactured	<u>N/A</u>	<u> </u>
Processed	<u>N/A</u>	<u> </u>

2.10 State the maximum daily inventory and average monthly inventory of the listed substance that was stored on-site during the reporting year in the form of a bulk chemical.

CBI

☐

Maximum daily inventory	<u>UK</u>	kg
Average monthly inventory	<u>UK</u>	

☐ Mark (X) this box if you attach a continuation sheet.

2.11 Related Product Types -- List any byproducts, coproducts, or impurities present with the listed substance in concentrations greater than 0.1 percent as it is manufactured, imported, or processed. The source of byproducts, coproducts, or impurities means the source from which the byproducts, coproducts, or impurities are made or introduced into the product (e.g., carryover from raw material, reaction product, etc.).

CBI

()

CAS No.	Chemical Name	Byproduct, Coproduct or Impurity ¹	Concentration (%) (specify ± % precision)	Source of Byproducts, Coproducts, or Impurities
584-84-9	2,4 Toluene Diisocyanate	C	UK	RAW MATERIAL

¹Use the following codes to designate byproduct, coproduct, or impurity:

B = Byproduct
C = Coproduct
I = Impurity

☐ Mark (X) this box if you attach a continuation sheet.

- 2.12 Existing Product Types -- List all existing product types which you manufactured, imported, or processed using the listed substance during the reporting year. List the quantity of listed substance you use for each product type as a percentage of the total volume of listed substance used during the reporting year. Also list the quantity of listed substance used captively on-site as a percentage of the value listed under column b., and the types of end-users for each product type. (Refer to the instructions for further explanation and an example.)

CBI

☐

a. Product Types ¹	b. % of Quantity Manufactured, Imported, or Processed	c. % of Quantity Used Captively On-Site	d. Type of End-Users
K	UK	UK	CS ≠ H

¹Use the following codes to designate product types:

A = Solvent	L = Moldable/Castable/Rubber and additive
B = Synthetic reactant	M = Plasticizer
C = Catalyst/Initiator/Accelerator/ Sensitizer	N = Dye/Pigment/Colorant/Ink and additive
D = Inhibitor/Stabilizer/Scavenger/ Antioxidant	O = Photographic/Reprographic chemical and additives
E = Analytical reagent	P = Electrodeposition/Plating chemicals
F = Chelator/Coagulant/Sequestrant	Q = Fuel and fuel additives
G = Cleanser/Detergent/Degreaser	R = Explosive chemicals and additives
H = Lubricant/Friction modifier/Antivear agent	S = Fragrance/Flavor chemicals
I = Surfactant/Emulsifier	T = Pollution control chemicals
J = Flame retardant	U = Functional fluids and additives
K = Coating/Binder/Adhesive and additives	V = Metal alloy and additives
	W = Rheological modifier
	X = Other (specify) _____

²Use the following codes to designate the type of end-users:

I = Industrial	CS = Consumer
CM = Commercial	H = Other (specify) <u>U.S. DEFENSE DEPT.</u>

☐ Mark (X) this box if you attach a continuation sheet.

- 2.13 Expected Product Types -- Identify all product types which you expect to manufacture, import, or process using the listed substance at any time after your current corporate fiscal year. For each use, specify the quantity you expect to manufacture, import, or process for each use as a percentage of the total volume of listed substance used during the reporting year. Also list the quantity of listed substance used captively on-site as a percentage of the value listed under column b., and the types of end-users for each product type. (Refer to the instructions for further explanation and an example.)

CBI

☐

a.	b.	c.	d.
Product Types ¹	% of Quantity Manufactured, Imported, or Processed	% of Quantity Used Captively On-Site	Type of End-Users ²
K	UK	UK	CS & H

¹Use the following codes to designate product types:

A = Solvent	L = Moldable/Castable/Rubber and additives
B = Synthetic reactant	M = Plasticizer
C = Catalyst/Initiator/Accelerator/Sensitizer	N = Dye/Pigment/Colorant/Ink and additives
D = Inhibitor/Stabilizer/Scavenger/Antioxidant	O = Photographic/Reprographic chemical and additives
E = Analytical reagent	P = Electrodeposition/Plating chemicals
F = Chelator/Coagulant/Sequestrant	Q = Fuel and fuel additives
G = Cleanser/Detergent/Degreaser	R = Explosive chemicals and additives
H = Lubricant/Friction modifier/Antivear agent	S = Fragrance/Flavor chemicals
I = Surfactant/Emulsifier	T = Pollution control chemicals
J = Flame retardant	U = Functional fluids and additives
K = Coating/Binder/Adhesive and additives	V = Metal alloy and additives
	W = Rheological modifier
	X = Other (specify) _____

²Use the following codes to designate the type of end-users:

I = Industrial	CS = Consumer
CM = Commercial	H = Other (specify) <u>U.S. DEFENSE DEPT.</u>

☐ Mark (X) this box if you attach a continuation sheet.

2.14 Final Product -- Complete the following table for each type of final product: manufactured, imported, or processed at your facility that contains the listed substance other than as an impurity.

☐

NA

a.	b.	c.	d.
Product Type ¹	Final Product's Physical Form ²	Average % Composition of Listed Substance in Final Product	Type of End-Users ³

¹Use the following codes to designate product types:

- | | |
|--|--|
| A = Solvent | L = Moldable/Castable/Rubber and additive |
| B = Synthetic reactant | M = Plasticizer |
| C = Catalyst/Initiator/Accelerator/Sensitizer | N = Dye/Pigment/Colorant/Ink and additive |
| D = Inhibitor/Stabilizer/Scavenger/Antioxidant | O = Photographic/Reprographic chemical and additives |
| E = Analytical reagent | P = Electrodeposition/Plating chemicals |
| F = Chelator/Coagulant/Sequestrant | Q = Fuel and fuel additives |
| G = Cleanser/Detergent/Degreaser | R = Explosive chemicals and additives |
| H = Lubricant/Friction modifier/Antivear agent | S = Fragrance/Flavor chemicals |
| I = Surfactant/Emulsifier | T = Pollution control chemicals |
| J = Flame retardant | U = Functional fluids and additives |
| K = Coating/Binder/Adhesive and additives | V = Metal alloy and additives |
| | W = Rheological modifier |
| | X = Other (specify) _____ |

²Use the following codes to designate the final product's physical form:

- | | |
|----------------------|---------------------------|
| A = Gas | F2 = Crystalline solid |
| B = Liquid | F3 = Granules |
| C = Aqueous solution | F4 = Other solid |
| D = Paste | G = Gel |
| E = Slurry | H = Other (specify) _____ |
| F1 = Powder | |

³Use the following codes to designate the type of end-users:

- | | |
|-----------------|---------------------------|
| I = Industrial | CS = Consumer |
| CH = Commercial | H = Other (specify) _____ |

☐ Mark (X) this box if you attach a continuation sheet.

2.15 Circle all applicable modes of transportation used to deliver bulk shipments of the listed substance to off-site customers. N/A

☐ Truck
Railcar
Barge, Vessel
Pipeline
Plane
Other (specify) _____

2.16 Customer Use -- Estimate the quantity of the listed substance used by your customers or prepared by your customers during the reporting year for use under each category of end use listed (i-iv). N/A

CBI

☐

Category of End Use

i. Industrial Products

Chemical or mixture kg/y
Article kg/y

ii. Commercial Products

Chemical or mixture kg/y
Article kg/y

iii. Consumer Products

Chemical or mixture kg/y
Article kg/y

iv. Other

Distribution (excluding export) kg
Export kg
Quantity of substance consumed as reactant kg
Unknown customer uses kg

☐ Mark (X) this box if you attach a continuation sheet.

2.17 State the quantity of the listed substance that you exported during the reporting
CBI year.

N/A

☐

In bulk kg
As a mixture kg
In articles kg

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 3 PROCESSOR RAW MATERIAL IDENTIFICATION

PART A GENERAL DATA

- 3.01 Specify the quantity purchased and the average price paid for the listed substance for each major source of supply listed. Product trades are treated as purchases.
CBI The average price is the market value of the product that was traded for the listed substance.

☐

Source of Supply

The listed substance was manufactured on-site.

The listed substance was transferred from a different company site.

The listed substance was purchased directly from a manufacturer or importer.

The listed substance was purchased from a distributor or repackager.

The listed substance was purchased from a mixture producer.

Quantity
(kg)

Average Price
(\$/kg)

N/A

N/A

UK

UK

NA

N/A

- 3.02 Circle all applicable modes of transportation used to deliver the listed substance
CBI your facility.

☐

Truck

Railcar

Barge, Vessel

Pipeline

Plane

Other (specify) _____

①

2

3

4

5

6

☐ Mark (X) this box if you attach a continuation sheet.

3.03 a. Circle all applicable containers used to transport the listed substance to your facility.

CBI

☐

Bags 1
Boxes 2
Free standing tank cylinders 3
Tank rail cars 4
Hopper cars 5
Tank trucks 6
Hopper trucks 7
Drums 8
Pipeline 9
Other (specify) _____ 10

b. If the listed substance is transported in pressurized tank cylinders, tank rail cars, or tank trucks, state the pressure of the tanks.

Tank cylinders N/A mmHg
Tank rail cars mmHg
Tank trucks mmHg

☐ Mark (X) this box if you attach a continuation sheet.

PART B RAW MATERIAL IN THE FORM OF A MIXTURE

3.04 If you obtain the listed substance in the form of a mixture, list the trade name(s) of the mixture, the name of its supplier(s) or manufacturer(s), an estimate of the average percent composition by weight of the listed substance in the mixture, and the amount of mixture processed during the reporting year.

CBI

☐

<u>Trade Name</u>	<u>Supplier or Manufacturer</u>	<u>Average % Composition by Weight (specify % precision)</u>	<u>Amount Processed (kg yr)</u>
CONATHANE CE-11.55	CONAP Inc.	0.5% IPI	717

☐ Mark (X) this box if you attach a continuation sheet.

PART C RAW MATERIAL VOLUME

3.05 State the quantity of the listed substance used as a raw material during the reporting year in the form of a class I chemical, class II chemical, or polymer, and the percent composition, by weight, of the listed substance.

☐

	Quantity Used (kg/yr)	% Composition by Weight of Listed Sub- stance in Raw Material (specify - % precise)
Class I chemical	5.85	0.5 5.2
Class II chemical		
Polymer		

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 4 PHYSICAL/CHEMICAL PROPERTIES

General Instructions:

If you are reporting on a mixture as defined in the glossary, reply to questions in Section 4 that are inappropriate to mixtures by stating "NA -- mixture."

For questions 4.06-4.15, if you possess any hazard warning statement, label, MSDS, or other notice that addresses the information requested, you may submit a copy or reasonable facsimile in lieu of answering those questions which it addresses.

PART A PHYSICAL/CHEMICAL DATA SUMMARY

- 4.01 Specify the percent purity for the three major¹ technical grade(s) of the listed substance as it is manufactured, imported, or processed. Measure the purity of the substance in the final product form for manufacturing activities, at the time you import the substance, or at the point you begin to process the substance.

CBI

☐

NA

	<u>Manufacture</u>	<u>Import</u>	<u>Process</u>
Technical grade #1	_____ % purity	_____ % purity	_____ % purity
Technical grade #2	_____ % purity	_____ % purity	_____ % purity
Technical grade #3	_____ % purity	_____ % purity	_____ % purity

¹Major = Greatest quantity of listed substance manufactured, imported or processed.

- 4.02 Submit your most recently updated Material Safety Data Sheet (MSDS) for the listed substance, and for every formulation containing the listed substance. If you possess an MSDS that you developed and an MSDS developed by a different source, submit your version. Indicate whether at least one MSDS has been submitted by circling the appropriate response.

☒ Yes

No

Indicate whether the MSDS was developed by your company or by a different source.

Your company 1.

(another source) 2.

☒ Mark (X) this box if you attach a continuation sheet.

- 4.03 Submit a copy or reasonable facsimile of any hazard information (other than an MSDS) that is provided to your customers/users regarding the listed substance or any formulation containing the listed substance. Indicate whether this information has been submitted by circling the appropriate response.

Yes N/A

No

- 4.04 For each activity that uses the listed substance, circle all the applicable number corresponding to each physical state of the listed substance during the activity listed. Physical states for importing and processing activities are determined at the time you import or begin to process the listed substance. Physical states for manufacturing, storage, disposal and transport activities are determined using the final state of the product.

CBI

☐

Activity	Physical State				
	Solid	Slurry	Liquid	Liquified Gas	Gas
Manufacture	1	2	3	4	5
Import	1	2	3	4	5
Process	1	②	3	4	5
Store	1	2	③	4	5
Dispose	①	2	3	4	5
Transport	1	2	3	4	5

☐ Mark (X) this box if you attach a continuation sheet.

- 4.05 Particle Size -- If the listed substance exists in particulate form during any of the following activities, indicate for each applicable physical state the size and the percentage distribution of the listed substance by activity. Do not include particles ≥ 10 microns in diameter. Measure the physical state and particle sizes for importing and processing activities at the time you import or begin to process the listed substance. Measure the physical state and particle sizes for manufacturing storage, disposal and transport activities using the final state of the product.

CBI

☐

Physical
State

~~N/A~~

Manufacture

Import

Process

Store

Dispose

Transport

Dust

<1 micron

1 to <5 microns

5 to <10 microns

Powder

<1 micron

1 to <5 microns

5 to <10 microns

Fiber

<1 micron

1 to <5 microns

5 to <10 microns

Aerosol

<1 micron

1 to <5 microns

5 to <10 microns

☐ Mark (X) this box if you attach a continuation sheet.

PART B FIRE, EXPLOSION, AND OTHER HAZARD DATA

4.06 For each physical state of the listed substance, specify the corresponding flashpoint, and the test method used to derive the flashpoint value.

Solid

Flashpoint N/A

Test method N/A

Liquid

Flashpoint N/A

Test method N/A

Gas/Vapor

Flashpoint N/A

Test method N/A

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

☒ Yes ①

No 2

4.07 Indicate the temperature at which the listed substance undergoes autopolymerization or autodecomposition.

Autopolymerizes at N/A

Autodecomposes at N/A

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

☒ Yes ①

No 2

☐ Mark (X) this box if you attach a continuation sheet.

4.08 Indicate the flammable limits in air (% by volume) for the listed substance at standard temperature and pressure.

Lower limit N/A :
Upper limit N/A :

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

☒ Yes ①
No 2

☐ Mark (X) this box if you attach a continuation sheet.

4.09 Extinguishing Media -- Identify (Y/N/NA/UK) all known methods for extinguishing flames caused by each product type which contains the listed substance. (Refer to the instructions for the definition of Y, N, NA and UK.)

Extinguishing Media	Product Types Containing the Listed Substance:					
	1	2	3	4	5	6
Water	Y					
Foam	Y					
CO ₂	Y					
Dry chemical (e.g., sodium bicarbonate)	Y					
Halogenated hydrocarbon (e.g., carbon tetrachloride, methyl bromide)						
Other (specify) _____						

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes 1
 No 2

¹Identify the product types listed under each column (1-6) in the following table:

Product Type No.	Product Type Identity
1	POLYURETHANE POLYMER
2	
3	
4	
5	
6	

☐ Mark (X) this box if you attach a continuation sheet.

4.10 Special Firefighting Procedures -- Identify (Y/N/NA/UK) all known restrictions on firefighting procedures used to combat fires caused by each product type which contains the listed substance. (Refer to the instructions for definitions of Y, N, NA and UK.)

N/A

Special Firefighting Procedures	Product Types Containing the Listed Substance ¹					
	1	2	3	4	5	6
Do not use water						
Do not increase air pressure						
Other (specify) _____						

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Identify the product types listed under each column (1-6) in the following table:

N/A

Product Type No.	Product Type Identity
1	
2	
3	
4	
5	
6	

☐ Mark (X) this box if you attach a continuation sheet.

- 4.11 Incompatibility -- List all chemicals, materials, or categories of chemicals or materials that you know are incompatible with the listed substance and the reason why they are incompatible. (Refer to the instructions for further explanation and an example.)

<u>CAS No.</u>	<u>Name</u>	<u>Reaction (specify)</u>
	N/A	

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

☒ Yes ①
 No 2

- 4.12 Autoxidation -- Is the listed substance capable of autoxidation? Circle the appropriate response.

Yes 1
☒ No ②
 Unknown 3

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

☒ Yes ①
 No 2

☐ Mark (X) this box if you attach a continuation sheet.

4.13 Indicate the autoignition temperature for the listed substance and the test method used to derive this value.

Autoignition temperature N/A °C

Test method N/A

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

☒ Yes ①

No 2

4.14 Vapor in Cargo Tanks -- If storing the listed substance in a cargo tank causes vapor problems, such as peroxide formation, reaction with moisture, specify the problem and necessary controls or restrictions used to remedy problem.

Vapor Problem

N/A

Controls/Res 3

Peroxide formation

Reaction with moisture

Combustion

Other (specify)

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

☒ Yes ①

No 2

☐ Mark (X) this box if you attach a continuation sheet.

4.15 Shipment Procedures -- If you use an inhibitor or stabilizer when shipping the listed substance in bulk form, specify its name, whether it inhibits or stabilizes the listed substance, the amount normally added, and the duration of its effectiveness.

CBI

☐

N/A

<u>Name of Additive</u>	<u>Inhibitor or Stabilizer¹</u>	<u>Amount Normally Added (ppm or %)</u>	<u>Duration of Effectiveness (specify units)</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

☒ Yes ①
 No 2

¹Use the following codes to designate inhibitor and stabilizer:

I = Inhibitor
 S = Stabilizer

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 5 ENVIRONMENTAL FATE

PART A RATE CONSTANTS AND TRANSFORMATION PRODUCTS

5.01 Indicate the rate constants for the following transformation processes.

a. Photolysis:

Absorption spectrum coefficient (peak) UK (1/M cm) at _____ nm
 Reaction quantum yield, ϕ UK at _____ nm
 Direct photolysis rate constant, k_p , at ... UK 1/hr _____ latitude

b. Oxidation constants at 25°C:

For 1O_2 (singlet oxygen), k_{ox} UK 1/M
 For RO_2 (peroxy radical), k_{ox} UK 1/M

c. Five-day biochemical oxygen demand, BOD₅ ... UK mg/l

d. Biotransformation rate constant:

For bacterial transformation in water, k_b ... UK 1/h
 Specify culture UK

e. Hydrolysis rate constants:

For base-promoted process, k_b UK 1/M
 For acid-promoted process, k_a UK 1/M
 For neutral process, k_n UK 1/h

f. Chemical reduction rate (specify conditions) UK

g. Other (such as spontaneous degradation) ... UK

☐ Mark (X) this box if you attach a continuation sheet.

PART B PARTITION COEFFICIENTS

5.02 a. Specify the half-life of the listed substance in the following media.

<u>Media</u>	<u>Half-life (specify units)</u>
Groundwater	UK
Atmosphere	UK
Surface water	UK
Soil	UK

b. Identify the listed substance's known transformation products that have a half-life greater than 24 hours.

<u>CAS No.</u>	<u>Name</u>	<u>Half-life (specify units)</u>	<u>Media</u>
UK			in
			in
			in
			in

5.03 Specify the octanol-water partition coefficient, K_{ow} ... UK at 25°
 Method of calculation or determination

5.04 Specify the soil-water partition coefficient, K_d UK at 25°
 Soil type

5.05 Specify the organic carbon-water partition coefficient, K_{oc} UK at 25°

5.06 Specify the Henry's Law Constant, H UK atm-cm³/m

☐ Mark (X) this box if you attach a continuation sheet.

5.07 List the bioconcentration factor (BCF) of the listed substance, the species for which it was determined, and the type of test used in deriving the BCF.

Bioconcentration Factor

Species

Test¹

UK

¹Use the following codes to designate the type of test:

F = Flowthrough

S = Static

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 6 ECONOMIC AND FINANCIAL INFORMATION

6.01 Company Type -- Circle the number which most appropriately describes your company.

CBI

- ☒ Corporation ①
- ☐ Sole proprietorship 2
- Partnership 3
- Other (specify) _____ 4

6.02 At the end of the reporting year, were you constructing additional facilities at this site that were not yet in operation at the end of the reporting year, but which are now being used or will be used in the future for manufacturing, importing, or processing the listed substance? Circle the appropriate response.

CBI

- ☐ Yes 1
- ☒ No ②

6.03 List all of the product types that you manufacture that contain the listed substance as a raw material, and the percentage of the name-plate capacity dedicated to the listed substance that each product type represents. The total of all capacity percentages should equal 100 percent. State the total name-plate capacity of the process type(s) used to manufacture all product types that contain the listed substance.

CBI

☐

NA

Product Type	% Total Capacity

State the total name-plate capacity of the process type(s) used to manufacture all product types that contain the listed substance: _____ kg/y

☐ Mark (X) this box if you attach a continuation sheet.

6.04 For each market listed below, state the quantity sold and the total sales value of the listed substance sold or transferred in bulk during the reporting year.

☐ CBI

N/A

<u>Market</u>	<u>Quantity Sold or Transferred (kg/yr)</u>	<u>Total Sales Value (\$/yr)</u>
Retail sales		
Distribution -- Wholesalers		
Distribution -- Retailers		
Intra-company transfer		
Repackagers		
Mixture producers		
Article producers		
Other chemical manufacturers or processors		
Exporters		
Other (specify)		

6.05 Substitutes -- List all known commercially feasible substitutes that you know exist for the listed substance and state the cost of each substitute. A commercially feasible substitute is one which is economically and technologically feasible to use in your current operation, and which results in a final product with comparable performance in its end uses.

☐ CBI

☐

<u>Substitute</u>	<u>Cost (\$/kg)</u>
- UK -	

☐ Mark (X) this box if you attach a continuation sheet.

6.06 State your average total and variable costs of manufacturing, importing, and processing the listed substance during the reporting year. (For an explanation of these costs, refer to the instructions.)

CBI

☐

Average Total Costs

Manufacturing \$
Importing \$
Processing UK \$

Average Variable Costs

Manufacturing \$
Importing \$
Processing UK \$

6.07 State your average purchase price of the listed substance, if purchased as a raw material during the reporting year.

CBI

☐

Average purchase price UK \$

6.08 State your company's total sales and sales of the listed substance sold in bulk for the reporting year.

CBI

☐

Year ending 1712 1818
Mo. Yea.

Company's total sales (\$) UK

Sales of listed substance (\$) UK

☐ Mark (X) this box if you attach a continuation sheet.

6.09 State your company's total sales and sales of the listed substance sold in bulk for the corporate fiscal year preceding the reporting year. (Refer to the instructions for question 6.08 for the methodology used to answer this question.)

☐

Year ending 17121 1818
Mo. Year

Company's total sales (\$) UK

Sales of listed substance (\$) UK

6.10 State your company's total sales and sales of the listed substance sold in bulk for the 2 corporate fiscal years preceding the reporting year in descending order. (Refer to the instructions for question 6.08 for the methodology used to answer this question.)

☐

Year ending 17121 1817
Mo. Year

Company's total sales (\$) UK

Sales of listed substance (\$) UK

Year ending 17121 1816
Mo. Year

Company's total sales (\$) UK

Sales of listed substance (\$) UK

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 7 MANUFACTURING AND PROCESSING INFORMATION

General Instructions:

For questions 7.04-7.06, provide a separate response for each process block flow diagram provided in questions 7.01, 7.02, and 7.03. Identify the process type from which the information is extracted.

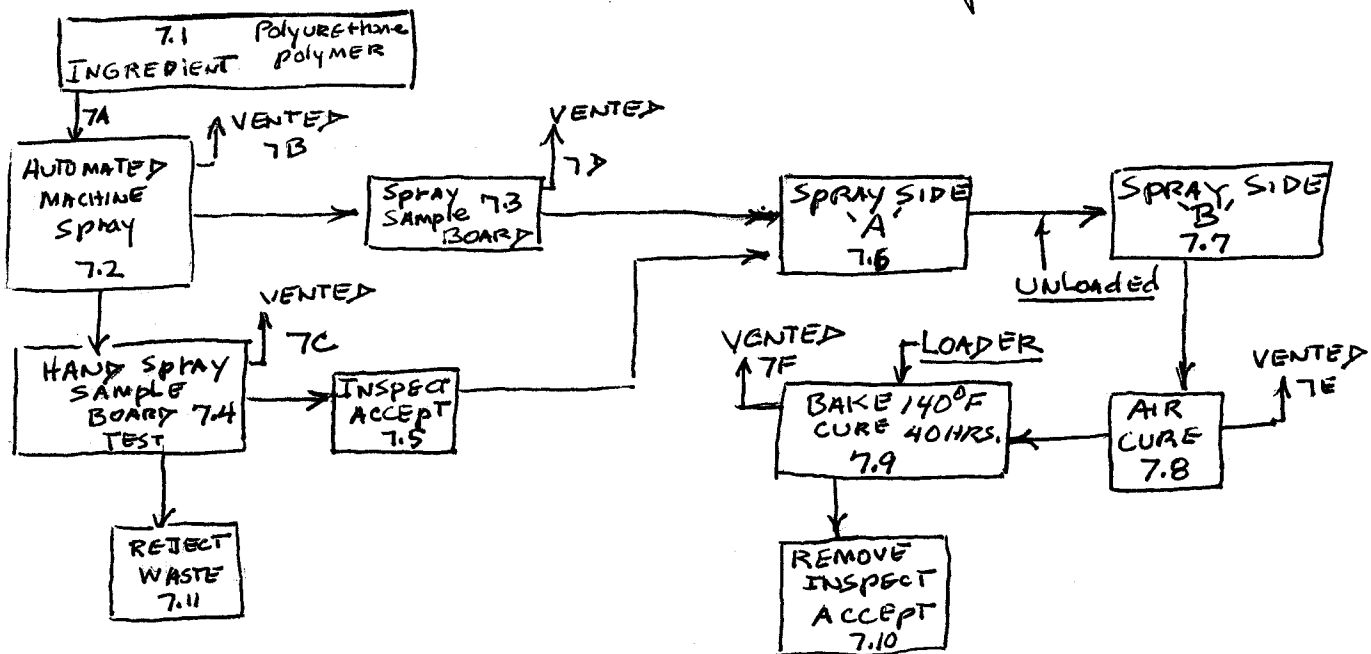
PART A MANUFACTURING AND PROCESSING PROCESS TYPE DESCRIPTION

7.01 In accordance with the instructions, provide a process block flow diagram showing the major (greatest volume) process type involving the listed substance.

CBI

☐ Process type

CONFORMAL COATING



☐ Mark (X) this box if you attach a continuation sheet.

7.02 In accordance with the instructions, provide a separate process block flow diagram showing each of the three major (greatest volume) process types involving the listed substance.

CBI

☐ Process type CONFORMAL COATING

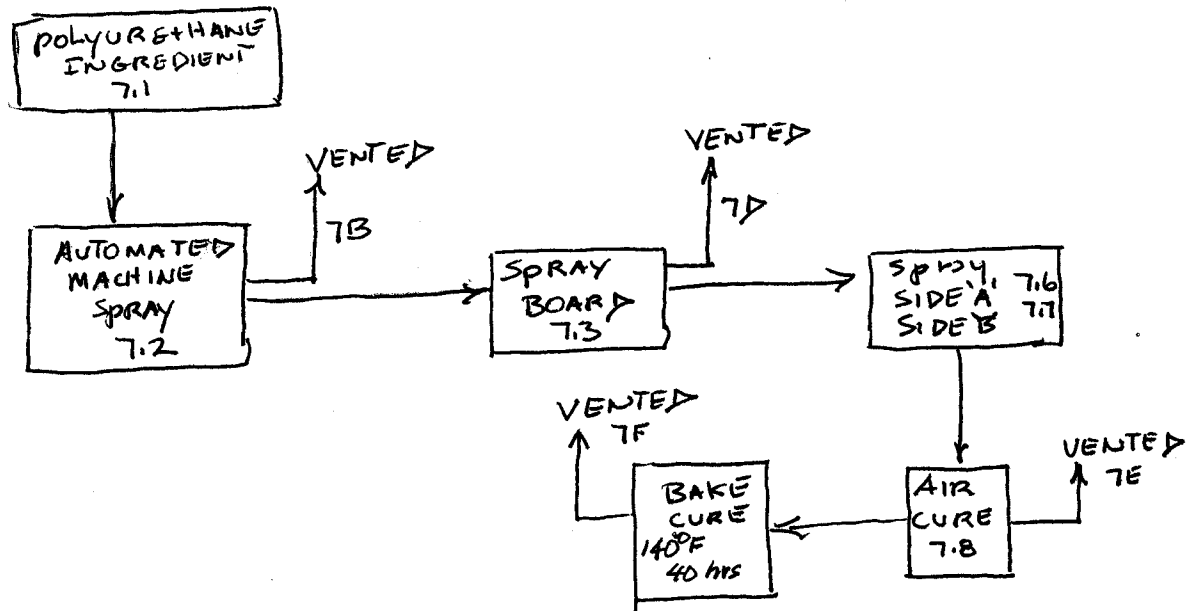
SAME AS 7.01

☐ Mark (X) this box if you attach a continuation sheet.

- 7.03 In accordance with the instructions, provide a process block flow diagram showing : process emission streams and emission points that contain the listed substance and which, if combined, would total at least 90 percent of all facility emissions if not treated before emission into the environment. If all such emissions are released from one process type, provide a process block flow diagram using the instructions for question 7.01. If all such emissions are released from more than one process type, provide a process block flow diagram showing each process type as a separate block.

CBI

☐ Process type CONFORMAL COATING



☐ Mark (X) this box if you attach a continuation sheet.

7.04 Describe the typical equipment types for each unit operation identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type.

CBI

☐ Process type CONFORMAL COATING

Unit Operation ID Number	Typical Equipment Type	Operating Temperature Range (°C)	Operating Pressure Range (mm Hg)	Vessel Compositio
<u>7.1</u>	<u>CONTAINER</u>	<u>AMBIENT</u>	<u>ATMOSPHERIC</u>	<u>S.S.</u>
<u>7.2</u>	<u>SPRAY MACHINE</u>	<u>AMBIENT</u>	<u>ATMOSPHERIC</u>	<u>IRON STEEL</u>
<u>—</u>	<u>AUTOMATED</u>	<u>—</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>HOOD</u>	<u>AMBIENT</u>	<u>ATMOSPHERIC</u>	<u>S.S.</u>
<u>7.6</u>	<u>HOOD</u>	<u>AMBIENT</u>	<u>ATMOSPHERIC</u>	<u>S.S.</u>
<u>7.7</u>	<u>HOOD</u>	<u>AMBIENT</u>	<u>ATMOSPHERIC</u>	<u>S.S.</u>
<u>7.8</u>	<u>HOOD</u>	<u>AMBIENT</u>	<u>ATMOSPHERIC</u>	<u>S.S.</u>
<u>7.9</u>	<u>OVEN</u>	<u>140°F</u>	<u>ATMOSPHERIC</u>	<u>GALVANIZED METAL</u>
<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>

☐ Mark (X) this box if you attach a continuation sheet.

7.05 Describe each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type.

CBI

☐ Process type Conformal Coating

Process Stream ID Code	Process Stream Description	Physical State ¹	Stream Flow (kg/hr)
<u>7A</u>	<u>POLYURETHANE SPRAY</u>	<u>OL</u>	<u>117Kg</u>
<u>7B</u>	<u>VAPORS</u>	<u>GU</u>	<u>UK</u>
<u>7C</u>	<u>VAPORS</u>	<u>GU</u>	<u>UK</u>
<u>7D</u>	<u>VAPORS</u>	<u>GU</u>	<u>UK</u>
<u>7E</u>	<u>VAPORS</u>	<u>GU</u>	<u>UK</u>
<u>7F</u>	<u>VAPORS</u>	<u>GU</u>	<u>UK</u>
_____	_____	_____	_____
_____	_____	_____	_____

¹Use the following codes to designate the physical state for each process stream:

- GC = Gas (condensable at ambient temperature and pressure)
- GU = Gas (uncondensable at ambient temperature and pressure)
- SO = Solid
- SY = Sludge or slurry
- AL = Aqueous liquid
- OL = Organic liquid
- IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

☐ Mark (X) this box if you attach a continuation sheet.

7.06 Characterize each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the CBI instructions for further explanation and an example.)

☐ Process type Conformal Coating

a.	b.	c.	d.	e.
Process Stream ID Code	Known Compounds ¹	Concentrations ^{2,3} (% or ppm)	Other Expected Compounds	Estimated Concentrations (% or ppm)
<u>7A</u>	<u>POLYURETHANE-TDI</u>	<u>0.05% TDI</u>	<u>UK</u>	<u>UK</u>
<u>7B</u>	<u>VAPORS</u>	<u>UK</u>	<u>UK</u>	<u>UK</u>
<u>7C-F</u>	<u>VAPORS</u>	<u>UK</u>	<u>UK</u>	<u>UK</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

7.06 continued below

☐ Mark (X) this box if you attach a continuation sheet.

¹For each additive package introduced into a process stream, specify the compounds that are present in each additive package, and the concentration of each component. Assign an additive package number to each additive package and list this number in column b. (Refer to the instructions for further explanation and an example. Refer to the glossary for the definition of additive package.)

Additive Package Number	<i>N/A</i>	Components of Additive Package	Concentrations (% or ppm)
<u>1</u>			
<u>2</u>			
<u>3</u>			
<u>4</u>			
<u>5</u>			

²Use the following codes to designate how the concentration was determined:

A = Analytical result
E = Engineering judgement/calculation

³Use the following codes to designate how the concentration was measured:

V = Volume
W = Weight

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 8 RESIDUAL TREATMENT GENERATION, CHARACTERIZATION, TRANSPORTATION, AND MANAGEMENT

General Instructions:

For questions 8.04-8.06, provide a separate response for each residual treatment block flow diagram provided in question 8.01, 8.02 or 8.03. Identify the process type from which the information is extracted.

For questions 8.05-8.33, the Stream Identification Codes are those process streams listed in either the Section 7 or Section 8 block flow diagrams which contain residuals for each applicable waste management method.

For questions 8.07-8.33, if residuals are combined before they are handled, list those Stream Identification Codes on the same line.

Questions 8.09-8.33 refer to the waste management activities involving the residuals identified in either the Section 7 or Section 8 block flow diagrams. Not all Stream Identification Codes used in the sample answers (e.g., for the incinerator questions) have corresponding process streams identified in the block flow diagram(s). These Stream Identification codes are for illustrative purposes only.

For questions 8.11-8.33, if you have provided the information requested on one of the EPA Office of Solid Waste surveys listed below within the three years prior to your reporting year, you may submit a copy or reasonable facsimile in lieu of answering those questions which the survey addresses. The applicable surveys are: (1) Hazardous Waste Treatment, Storage, Disposal, and Recycling Survey; (2) Hazardous Waste Generator Survey; or (3) Subtitle D Industrial Facility Mail Survey.

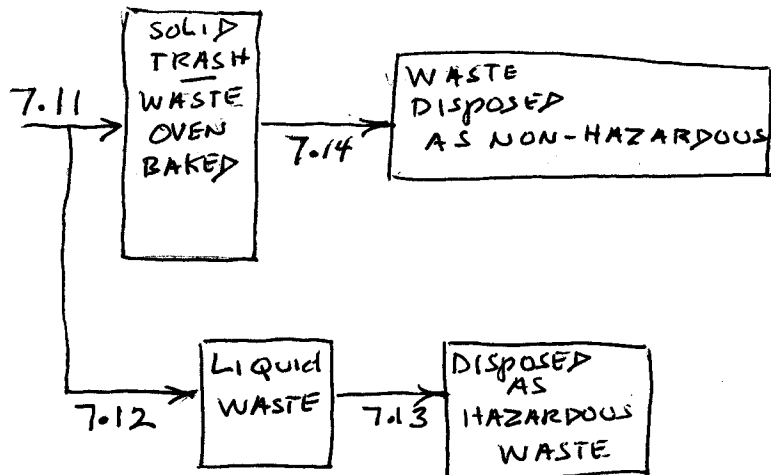
☐ Mark (X) this box if you attach a continuation sheet.

PART A RESIDUAL TREATMENT PROCESS DESCRIPTION

8.01 In accordance with the instructions, provide a residual treatment block flow diagram which describes the treatment process used for residuals identified in question 7.01.

CBI

☐ Process type CONFORMAL COATING



☐ Mark (X) this box if you attach a continuation sheet.

8.02 In accordance with the instructions, provide residual treatment block flow diagram(s) which describe each of the treatment processes used for residuals identified in question 7.02.

CBI

☐

Process type

CONFORMAL COATING

SAME AS 8.01

☐ Mark (X) this box if you attach a continuation sheet.

8.03 In accordance with the instructions, provide residual treatment block flow diagram(s) which describe each of the treatment processes used for residuals identified in question 7.03.

CBI

☐ Process type CONFORMAL COATING

SAME AS 8.01

☐ Mark (X) this box if you attach a continuation sheet.

8.04 Describe the typical equipment types for each unit operation identified in your residual treatment block flow diagram(s). If a residual treatment block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type.

CBI

☐

Process type

N/A

Unit Operation ID Number
(as assigned in questions
8.01, 8.02, or 8.03)

Typical Equipment Type

☐

Mark (X) this box if you attach a continuation sheet.

PART B RESIDUAL GENERATION AND CHARACTERIZATION

8.05 Characterize each process stream identified in your residual treatment block flow diagram(s). If a residual treatment block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the instructions for further explanation and an example.)

☐ Process type CONFORMAL COATING

a.	b.	c.	d.	e.	f.	g.
Stream ID Code	Type of Hazardous Waste	Physical State of Residual ²	Known Compounds ³	Concentrations (% or ppm)	Other Expected Compounds	Estimated Concentrations (% or ppm)
<u>7B</u>	<u>T</u>	<u>GU</u>	<u>2-4-TDI</u>	<u>UK</u>	<u>UK</u>	<u>UK</u>
<u>7C</u>	<u>T</u>	<u>GU</u>	<u>2-4-TDI</u>	<u>UK</u>	<u>UK</u>	<u>UK</u>
<u>7D</u>	<u>T</u>	<u>GU</u>	<u>2-4-TDI</u>	<u>UK</u>	<u>UK</u>	<u>UK</u>
<u>7F</u>	<u>T</u>	<u>GU</u>	<u>2-4-TDI</u>	<u>UK</u>	<u>UK</u>	<u>UK</u>

8.05 continued below

☐ Mark (X) this box if you attach a continuation sheet.

8.05 (continued)

¹Use the following codes to designate the type of hazardous waste:

I = Ignitable
C = Corrosive
R = Reactive
E = EP toxic
T = Toxic
H = Acutely hazardous

²Use the following codes to designate the physical state of the residual:

GC = Gas (condensable at ambient temperature and pressure)
GU = Gas (uncondensable at ambient temperature and pressure)
SO = Solid
SY = Sludge or slurry
AL = Aqueous liquid
OL = Organic liquid
IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

8.05 continued below

☐ Mark (X) this box if you attach a continuation sheet.

8.05 (continued)

³For each additive package introduced into a process stream, specify the compounds that are present in each additive package, and the concentration of each component. Assign an additive package number to each additive package and list this number in column d. (Refer to the instructions for further explanation and an example. Refer to the glossary for the definition of additive package.)

Additive Package Number	Components of Additive Package	Concentrations (% or ppm)
<u>1</u>		
<u>2</u>		
<u>3</u>		
<u>4</u>		
<u>5</u>		

⁴Use the following codes to designate how the concentration was determined:

A = Analytical result
E = Engineering judgement/calculation

8.05 continued below

☐ Mark (X) this box if you attach a continuation sheet.

8.05 (continued)

⁵ Use the following codes to designate how the concentration was measured:

V = Volume

W = Weight

⁶ Specify the analytical test methods used and their detection limits in the table below. Assign a code to each test method used and list those codes in column e.

NA			Detection Limit (\pm ug/l)
<u>Code</u>	<u>Method</u>		
<u>1</u>			
<u>2</u>			
<u>3</u>			
<u>4</u>			
<u>5</u>			
<u>6</u>			

☐ Mark (X) this box if you attach a continuation sheet.

⁵Use the following codes to designate how the concentration was measured:

V = Volume

W = Weight

⁶Specify the analytical test methods used and their detection limits in the table below. Assign a code to each test method used and list those codes in column e.

N/A

<u>Code</u>	<u>Method</u>	<u>Detection Lim-</u> <u>(= ug/l)</u>
<u>1</u>	_____	_____
<u>2</u>	_____	_____
<u>3</u>	_____	_____
<u>4</u>	_____	_____
<u>5</u>	_____	_____
<u>6</u>	_____	_____

☐ Mark (X) this box if you attach a continuation sheet.

CBI

[illegible]

²Use the codes provided in Exhibit 8-2 to designate the management methods

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WASTE DESCRIPTION CODES

These waste description codes were developed specifically for this survey to supplement the descriptions listed with the RCRA and other waste codes. (These waste description codes are not regulatory definitions.)

WASTE DESCRIPTION CODES FOR HAZARDOUS WASTE DESCRIBED BY A SINGLE RCRA F, K, P, OR U WASTE CODE

A01 Spent solvent (F001-F005, K086)	A06 Contaminated soil or cleanup residue	A10 Incinerator ash
A02 Other organic liquid (F001-F005, K086)	A07 Other F or K waste, exactly as described	A11 Solidified treatment residue
A03 Still bottom (F001-F005, K086)	A08 Concentrated off-spec or discarded product	A12 Other treatment residue (specify in "Facility Notes")
A04 Other organic sludge (F001-F005, K086)	A09 Empty containers	A13 Other untreated waste (specify in "Facility Notes")
A05 Wastewater or aqueous mixture		

"Exactly as described" means that the waste matches the description of the RCRA waste code.

INORGANIC LIQUIDS—Waste that is primarily inorganic and highly fluid (e.g., aqueous), with low suspended inorganic solids and low organic content

- B01 Aqueous waste with low solvents
- B02 Aqueous waste with low other toxic organics
- B03 Spent acid with metals
- B04 Spent acid without metals
- B05 Acidic aqueous waste
- B06 Caustic solution with metals but no cyanides
- B07 Caustic solution with metals and cyanides
- B08 Caustic solution with cyanides but no metals
- B09 Spent caustic
- B10 Aqueous waste with reactive sulfides
- B12 Aqueous waste with other reactives (e.g., explosives)
- B13 Other aqueous waste with high dissolved solids
- B14 Other aqueous waste with low dissolved solids
- B15 Scrubber water
- B16 Leachate
- B17 Waste liquid mercury
- B18 Other inorganic liquid (specify in "Facility Notes")

INORGANIC SLUDGES—Waste that is primarily inorganic, with moderate-to-high water content and low organic content; pumpable.

- B19 Lime sludge without metals
- B20 Lime sludge with metals/metals hydroxide sludge
- B21 Wastewater treatment sludge with toxic organics
- B22 Other wastewater treatment sludge
- B23 Untreated plating sludge without cyanides
- B24 Untreated plating sludge with cyanides
- B25 Other sludge with cyanides
- B26 Sludge with reactive sulfides
- B27 Sludge with other reactives
- B28 Degreasing sludge with metal scale or slings
- B29 Air pollution control device sludge (e.g., fly ash wet scrubber sludge)
- B30 Sediment or lagoon dragout contaminated with organics
- B31 Sediment or lagoon dragout contaminated with inorganics only

- B32 Drilling mud
- B33 Asbestos slurry or sludge
- B34 Chloride or other brine sludge
- B35 Other inorganic sludge (specify in "Facility Notes")

INORGANIC SOLIDS—Waste that is primarily inorganic and solid, with low organic content and low-to-moderate water content; not pumpable.

- B36 Soil contaminated with organics
- B37 Soil contaminated with inorganics only
- B38 Ash, slag, or other residue from incineration of wastes
- B39 Other "dry" ash, slag, or thermal residue
- B40 "Dry" lime or metal hydroxide solids chemically "fused"
- B41 "Dry" lime or metal hydroxide solids not "fused"
- B42 Metal scale, flings, or scraps
- B43 Empty or crushed metal drums or containers
- B44 Batteries or battery parts, casings, cores
- B45 Spent sand filters or adsorbents
- B46 Asbestos solids and debris
- B47 Metal-cyanide salts/chemicals
- B48 Reactive cyanide salts/chemicals
- B49 Reactive sulfide salts/chemicals
- B50 Other reactive salts/chemicals
- B51 Other metal salts/chemicals
- B52 Other waste inorganic chemicals
- B53 Lab packs of old chemicals only
- B54 Lab packs of debris only
- B55 Mixed lab packs
- B56 Other inorganic solids (specify in "Facility Notes")

INORGANIC GASES—Waste that is primarily inorganic with a low organic content and is a gas at atmospheric pressure.

- B57 Inorganic gases

ORGANIC LIQUIDS—Waste that is primarily organic and is highly fluid, with low inorganic solids content and low-to-moderate water content.

- B58 Concentrated solvent-water solution
- B59 Halogenated (e.g., chlorinated) solvent
- B60 Nonhalogenated solvent

- A10 Incinerator ash
- A11 Solidified treatment residue
- A12 Other treatment residue (specify in "Facility Notes")
- A13 Other untreated waste (specify in "Facility Notes")

- B61 Halogenated/nonhalogenated solvent mixture
- B62 Oil-water emulsion or mixture
- B63 Waste oil
- B64 Concentrated aqueous solution of other organics
- B65 Concentrated phenolics
- B66 Organic paint, ink, lacquer or varnish
- B67 Adhesives or epoxies
- B68 Paint thinner or petroleum distillates
- B69 Reactive or polymerizable organic liquid
- B70 Other organic liquid (specify in "Facility Notes")

ORGANIC SLUDGES—Waste that is primarily organic, with low-to-moderate inorganic solids content and water content; pumpable.

- B71 Still bottoms of halogenated (e.g., chlorinated) solvents or other organic liquids
- B72 Still bottoms of nonhalogenated solvents or other organic liquids
- B73 Oily sludge
- B74 Organic paint or ink sludge
- B75 Reactive or polymerizable organics
- B76 Resins, tars, or tarry sludge
- B77 Biological treatment sludge
- B78 Sewage or other untreated biological sludge
- B79 Other organic sludge (specify in "Facility Notes")

ORGANIC SOLIDS—Waste that is primarily organic and solid, with low-to-moderate inorganic content and water content; not pumpable.

- B80 Halogenated pesticide solid
- B81 Nonhalogenated pesticide solid
- B82 Solid resins or polymerized organics
- B83 Spent carbon
- B84 Reactive organic solid
- B85 Empty fiber or plastic containers
- B86 Lab packs of old chemicals only
- B87 Lab packs of debris only
- B88 Mixed lab packs
- B89 Other halogenated organic solid
- B90 Other nonhalogenated organic solid

ORGANIC GASES—Waste that is primarily organic with low-to-moderate inorganic content and is a gas at atmospheric pressure.

- B91 Organic gases

EXHIBIT 8-2.
(Refers to question 8.06(c))

MANAGEMENT METHODS

- M1 - Discharge to publicly owned wastewater treatment works
- M2 - Discharge to surface water under NPDES
- M3 - Discharge to off-site, privately owned wastewater treatment works
- M4 - Scrubber: a) caustic; b) water; c) other
- M5 - Vent to: a) atmosphere; b) flare; c) other (specify) _____
- M6 - Other (specify) _____

TREATMENT AND RECYCLING

- Incineration/thermal treatment
- 1I Liquid injection
 - 2I Rotary or rocking kiln
 - 3I Rotary kiln with a liquid injection unit
 - 4I Two stage
 - 5I Fixed hearth
 - 6I Multiple hearth
 - 7I Fluidized bed
 - 8I Infrared
 - 9I Fume/vapor
 - 10I Pyrolytic destructor
 - 11I Other incineration/thermal treatment

Reuse as fuel

- 1RF Cement kiln
- 2RF Aggregate kiln
- 3RF Asphalt kiln
- 4RF Other kiln
- 5RF Blast furnace
- 6RF Sulfur recovery furnace
- 7RF Smelting, melting, or refining furnace
- 8RF Coke oven
- 9RF Other industrial furnace
- 10RF Industrial boiler
- 11RF Utility boiler
- 12RF Process heater
- 13RF Other reuse as fuel unit

Fuel Blending

- 1FB Fuel blending

Solidification

- 1S Cement or cement/silicate processes
- 2S Pozzolanic processes
- 3S Asphaltic processes
- 4S Thermoplastic techniques
- 5S Organic polymer techniques
- 6S Jacketing (macro-encapsulation)
- 7S Other solidification

Recovery of solvents and liquid organics for reuse

- 1SR Fractionation
- 2SR Batch still distillation
- 3SR Solvent extraction
- 4SR Thin-film evaporation
- 5SR Filtration
- 6SR Phase separation
- 7SR Dessication
- 8SR Other solvent recovery

Recovery of metals

- 1MR Activated carbon (for metals recovery)
- 2MR Electrodialysis (for metals recovery)
- 3MR Electrolytic metal recovery
- 4MR Ion exchange (for metals recovery)
- 5MR Reverse osmosis (for metals recovery)
- 6MR Solvent extraction (for metals recovery)
- 7MR Ultrafiltration (for metals recovery)
- 8MR Other metals recovery

Wastewater Treatment

After each wastewater treatment type listed below (1VT - 66VT) specify a) tank; or b) surface impoundment (i.e., 63VTa)

Equalization

- 1VT Equalization

Cyanide oxidation

- 2VT Alkaline chlorination
- 3VT Ozone
- 4VT Electrochemical
- 5VT Other cyanide oxidation

General oxidation (including disinfection)

- 6VT Chlorination
- 7VT Ozonation
- 8VT UV radiation
- 9VT Other general oxidation

Chemical precipitation¹

- 10VT Lime
- 11VT Sodium hydroxide
- 12VT Soda ash
- 13VT Sulfide
- 14VT Other chemical precipitation

Chromium reduction

- 15VT Sodium bisulfite
- 16VT Sulfur dioxide

MANAGEMENT METHODS

17WT Ferrous sulfate
18WT Other chromium reduction

Complexed metals treatment (other than
chemical precipitation by pH adjustment)
19WT Complexed metals treatment

Emulsion breaking
20WT Thermal
21WT Chemical
22WT Other emulsion breaking

Adsorption
23WT Carbon adsorption
24WT Ion exchange
25WT Resin adsorption
26WT Other adsorption

Stripping
27WT Air stripping
28WT Steam stripping
29WT Other stripping

Evaporation
30WT Thermal
31WT Solar
32WT Vapor recompression
33WT Other evaporation

Filtration
34WT Diatomaceous earth
35WT Sand
36WT Multimedia
37WT Other filtration

Sludge dewatering
38WT Gravity thickening
39WT Vacuum filtration
40WT Pressure filtration (belt, plate
and frame, or leaf)
41WT Centrifuge
42WT Other sludge dewatering

Air flotation
43WT Dissolved air flotation
44WT Partial aeration
45WT Air dispersion
46WT Other air flotation

Oil skimming
47WT Gravity separation

48WT Coalescing plate separation
49WT Other oil skimming

Other liquid phase separation
50WT Decanting
51WT Other liquid phase separation

Biological treatment
52WT Activated sludge
53WT Fixed film-trickling filter
54WT Fixed film-rotating contactor
55WT Lagoon or basin, aerated
56WT Lagoon, facultative
57WT Anaerobic
58WT Other biological treatment

Other wastewater treatment
59WT Wet air oxidation
60WT Neutralization
61WT Nitrification
62WT Denitrification
63WT Flocculation and/or coagulation
64WT Settling (clarification)
65WT Reverse osmosis
66WT Other wastewater treatment

OTHER WASTE TREATMENT

1TR Other treatment
2TR Other recovery for reuse

ACCUMULATION

1A Containers
2A Tanks

STORAGE

1ST Container (i.e., barrel, drum)
2ST Tank
3ST Waste pile
4ST Surface impoundment
5ST Other storage

DISPOSAL

1D Landfill
2D Land treatment
3D Surface impoundment (to be closed
as a landfill)
4D Underground injection well

¹Chemical precipitation is a treatment operation whereby the pH of a waste is adjusted to the range necessary for removal (precipitation) of contaminants. However, if the pH is adjusted solely to achieve a neutral pH, THE OPERATION SHOULD BE CONSIDERED NEUTRALIZATION (60WT).

PART C TRANSPORTATION OF RESIDUALS TO OFF-SITE FACILITIES

8.07 Identify any special handling instructions for the residuals identified in your process block or residual treatment block flow diagram(s). (Refer to the CBI instructions for an example.)

Stream ID Code	Special Handling Instructions

8.08 Identify those construction materials that are recommended (compatible) for containing or transporting the listed substance, and those materials that you know could cause a dangerous reaction or significant corrosion (incompatible) if they are used to contain or transport the listed substance.

Stream ID Code	Construction Materials	
	Compatible Containment Materials	Incompatible Containment Materials

☐ Mark (X) this box if you attach a continuation sheet.

PART C TRANSPORTATION OF RESIDUALS TO OFF-SITE FACILITIES

8.07 Identify any special handling instructions for the residuals identified in your process block or residual treatment block flow diagram(s). (Refer to the instructions for an example.)

☐

Stream
ID
Code

N/A

Special Handling Instructions

8.08 Identify those construction materials that are recommended (compatible) for containing or transporting the listed substance, and those materials that you know could cause a dangerous reaction or significant corrosion (incompatible) if they are used to contain or transport the listed substance.

CBI

☐

Stream
ID
Code

N/A

Construction Materials

Compatible Containment Materials

Incompatible Containment Material:

☐ Mark (X) this box if you attach a continuation sheet.

CBI

()

Annual Quantity (kg)

[illegible][illegible]

N/A

Address

Street

City

City

State Zip Code

State

Zip Code

EPA Identification Number (i.e., Hazardous Waste Facility ID Number) [][][][][][][][][][][][][][][][]

☐ Mark (X) this box if you attach a continuation sheet.

(二)

Annual Quantity (Kg)

N/A

[illegible]

Street

City

City

State Zip Code

State

Zip Code

[illegible]

☐ Mark (X) this box if you attach a continuation sheet.

PART D ON-SITE RESIDUALS MANAGEMENT INFORMATION

8.10 Identification Permit Numbers -- List any applicable identification or permit numbers for your facility.

N/A

EPA National Pollutant Discharge Elimination System

(NPDES) Permit No.(s)

(discharges to surface water)

EPA Underground Injection Well

(UIC) Permit No.(s)

(underground injection of fluids)

EPA Point Source Discharge

(PSD) Permit No.(s)

(air emissions from point sources)

EPA Hazardous Waste Management

Facility Permit No.(s)

Other EPA Permits (specify)

.....

.....

.....

☐ Mark (X) this box if you attach a continuation sheet.

8.11 On-Site Storage or Treatment in Piles -- Complete this table for the five largest (by volume) piles that are used on-site to store or treat the residuals identified in your process block or residual treatment block flow diagram(s).

☐

File	Quantity Managed per Year (cubic meters)	Under Roofed Structure (Y/N)	Type of Contain- ment Provided ¹	Synthetic Liner Base (Y/N) ²	Frequency of Transfer and/or Handling Operations ³	Stream ID Code
1						
2						
3						
4						
5						

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes

No

¹Use the following codes to designate the type of containment provided:

- C = Complete (includes both dike containment and underground (leachate) containment)
- P1 = Partial-1 (includes just dike containment)
- P2 = Partial-2 (includes just underground (leachate) containment)
- N = None

²Waste may lie directly on the synthetic liner or the liner may be covered with a clay layer

³Use the following codes to designate frequency of transfer and/or handling operations:

- A = Daily
- B = Weekly
- C = Monthly
- D = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

8.12 On-Site Storage or Treatment in Tanks -- Complete the following table for the five largest (by volume) tanks that are used on-site to store or treat the residuals identified in your process block or residual treatment block flow diagram(s).

☐

N/A

Tank	Design Capacity (liters)	Quantity per Year (liters)	Treatment Types ¹	Average Length of Storage (days)	Part of Wastewater Treatment Train (Y/N) ²	Tank Covered (Y/N)	Type of Containment Provided	Stream ID Code
1								
2								
3								
4								
5								

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Indicate "S" for storage or use the codes provided in Exhibit 8-3 (which follows question 8.13) to designate treatment types

²Treatment train from which wastewater is discharged under a NPDES permit or through a sewer system to a publicly owned treatment works

³Use the following codes to designate the type of containment provided:

C = Complete (includes both dike containment and underground (leachate) containment)

P1 = Partial-1 (includes just dike containment)

P2 = Partial-2 (includes just underground (leachate) containment)

N = None

8.13 On-Site Storage, Treatment, or Disposal in Containers -- Complete the following table for the five largest (by volume) types of free standing containers that are used on-site to store, treat, or dispose of the residuals identified in your process block or residual treatment block flow diagram(s).

☐ CBI

N/A

Container	Design Capacity (liters)	Quantity Stored per Year (liters)	Treatment Types	Average Length of Storage (days)	Average Daily Stored Quantity (liters)	Maximum Operational Storage Capacity (liters)	Storage Base Material ¹	Stream ID Code
1								
2								
3								
4								
5								

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Indicate "S" for storage and use the codes provided in Exhibit 8-3 to designate treatment types

If residual is stored, indicate (Y/N) in parenthesis whether the storage area is designed and operated to collect and contain surface runoff

²Use the following codes to designate storage base materials:

- A = Concrete
- B = Asphalt
- C = Soil
- D = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

WASTEWATER TREATMENT TYPES

WASTEWATER TREATMENT

Equalization

1WT Equalization

Cyanide oxidation

2WT Alkaline chlorination
3WT Ozone
4WT Electrochemical
5WT Other cyanide oxidation

General oxidation (including disinfection)

6WT Chlorination
7WT Ozonation
8WT UV Radiation
9WT Other general oxidation

Chemical Precipitation¹

10WT Lime
11WT Sodium hydroxide
12WT Soda ash
13WT Sulfide
14WT Other chemical precipitation

Chromium reduction

15WT Sodium bisulfite
16WT Sulfur dioxide
17WT Ferrous sulfate
18WT Other chromium reduction

Complexed metals treatment (other than chemical precipitation by pH adjustment)

19WT Complexed metals treatment

Emulsion breaking

20WT Thermal
21WT Chemical
22WT Other emulsion breaking

Adsorption

23WT Carbon adsorption
24WT Ion exchange
25WT Resin adsorption
26WT Other adsorption

Stripping

27WT Air stripping
28WT Steam stripping
29WT Other stripping

Evaporation

30WT Thermal

31WT Solar
32WT Vapor recompression
33WT Other evaporation

Filtration

34WT Diatomaceous earth
35WT Sand
36WT Multimedia
37WT Other filtration

Sludge dewatering

38WT Gravity thickening
39WT Vacuum filtration
40WT Pressure filtration (belt, plate and frame, or leaf)
41WT Centrifuge
42WT Other sludge dewatering

Air flotation

43WT Dissolved air flotation
44WT Partial aeration
45WT Air dispersion
46WT Other air flotation

Oil skimming

47WT Gravity separation
48WT Coalescing plate separation
49WT Other oil skimming

Other liquid phase separation

50WT Decanting
51WT Other liquid phase separation

Biological treatment

52WT Activated sludge
53WT Fixed film--trickling filter
54WT Fixed film--rotating contactor
55WT Lagoon or basin, aerated
56WT Lagoon, facultative
57WT Anaerobic
58WT Other biological treatment

Other wastewater treatment

59WT Wet air oxidation
60WT Neutralization
61WT Nitrification
62WT Denitrification
63WT Flocculation and/or coagulation
64WT Settling (clarification)
65WT Reverse osmosis
66WT Other wastewater treatment

¹Chemical precipitation is a treatment operation whereby the pH of a waste is adjusted to the range necessary for removal (precipitation) of contaminants. However, if the pH is adjusted solely to achieve a neutral pH, THE OPERATION SHOULD BE CONSIDERED NEUTRALIZATION (60WT).

8.14 On-Site Burning in Boilers -- Complete the following table for the five largest (by capacity) boilers that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

☐

N/A

Boiler	Boiler Type ¹	Average Boiler Load ² (%)	Average Fuel Replacement Ratio ³ (%)	Stream ID Code
1				
2				
3				
4				
5				

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes

No

¹Use the following codes to designate boiler type:

F = Fire tube
W = Water tube

²Designate the average boiler load when firing residual (percent of capacity)

³Designate the average fuel replacement ratio as a percentage (heat-input basis)

☐ Mark (X) this box if you attach a continuation sheet.

8.15 Complete the following table for the five largest (by capacity) boilers that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

CBI

☐

Boiler	Boiler Heat Capacity (heat input in kJ/hr)	Primary Boiler Fuel
1		
2		
3		
4		
5		

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes

No

¹Use the following codes to designate the primary boiler fuel:

A = Oil
B = Gas
C = Coal

D = Wood
E = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

8.16 Provide the following information for the residuals identified in your process block or residual treatment block flow diagram(s) that are burned in on-site boilers. Photocopy this question and complete it separately for each boiler.

CBI

☐ Boiler number
Stream ID code(s)

N/A

	Residual, as Fired (or residual mixture if residuals are blended)	Boiler Fuel, as Fired (residual(s) plus primary fuel)
Btu content (J/kg)		
Average		
Minimum		
Total halogen content (% by wt.)		
Average		
Maximum		

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes

No

☐ Mark (X) this box if you attach a continuation sheet.

8.17 Complete the following table for the five largest (by capacity) boilers that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

CBI

()

N/A

Boiler	Stream ID Code	Listed Metal ¹	Total Metal Content (% by weight)	
			Avg.	Max.
<u>1</u>	_____	_____	_____	_____
		_____	_____	_____
		_____	_____	_____
<u>2</u>	_____	_____	_____	_____
		_____	_____	_____
		_____	_____	_____
<u>3</u>	_____	_____	_____	_____
		_____	_____	_____
		_____	_____	_____
<u>4</u>	_____	_____	_____	_____
		_____	_____	_____
		_____	_____	_____
<u>5</u>	_____	_____	_____	_____
		_____	_____	_____
		_____	_____	_____

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes

No

¹ A listed metal is either an EP toxic metal or a metal that is included on the California List (as defined in section 3004(d)(2) of the Resource Conservation and Recovery Act)

() Mark (X) this box if you attach a continuation sheet.

CBI

N/A

<u>Boiler</u>	<u>Air Pollution, Control Device¹</u>	<u>Types of Emissions Data Available</u>
<u>1</u>	<u></u>	<u></u>
<u>2</u>	<u></u>	<u></u>
<u>3</u>	<u></u>	<u></u>
<u>4</u>	<u></u>	<u></u>
<u>5</u>	<u></u>	<u></u>

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes

No

Use the following codes to designate the air pollution control device:

S = Scrubber (include type of scrubber in parenthesis)

E = Electrostatic precipitator

0 = Other (specify)

☐ Mark (X) this box if you attach a continuation sheet.

8.19 Stack Parameters -- Provide the following information for each of the five largest (by capacity) boilers that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s). Photocopy this question and complete it separately for each boiler.

CBI

☐ Boiler number *N/A*

Stack height m
Stack inner diameter (at outlet) m
Exhaust temperature °C
Vertical or horizontal stack (V or H)
Annual emissions for the listed substance kg/yr
Height of attached or adjacent building m
Width of attached or adjacent building m
Building cross-sectional area m²
Emission exit velocity m/sec
Average emission rate of exit stream kg/min
Maximum emission rate of exit stream kg/min
Average duration of maximum emission rate of exit stream min
Frequency of maximum emission rate of exit stream times/year

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes

No

☐ Mark (X) this box if you attach a continuation sheet.

8.20 On-Site Burning in Incinerators -- Complete the following table for the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in CBI your process block or residual treatment block flow diagram(s).

☐

N/A

<u>Incinerator</u>	<u>Incinerator Type¹</u>	<u>Primary Incinerator Fuel²</u>	<u>Average Fuel Replacement Ratio</u>	<u>Stream ID Code</u>
<u>1</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>2</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>3</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes

No

¹Use the following codes to designate the incinerator type:

1I = Liquid injection
 2I = Rotary or rocking kiln
 3I = Rotary kiln with a liquid injection unit
 4I = Two stage
 5I = Fixed hearth

6I = Multiple hearth
 7I = Fluidized bed
 8I = Infrared
 9I = Fume/vapor
 10I = Pyrolytic destructor
 11I = Other (specify) _____

²Use the following codes to designate the primary incinerator fuel:

A = Oil
 B = Gas
 C = Coal

D = Wood
 E = Other (specify) _____

³Designate the percentage of auxiliary fuel used when firing residual (percent of capacity)

☐ Mark (X) this box if you attach a continuation sheet.

8.21 Complete the following table for the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual CBI treatment block flow diagram(s).

☐

Incinerator	Incinerator Heat Capacity (heat input in kJ/hr)	Feed Type
1		
2		
3		

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes

No

¹Use the following codes to designate feed type:

- A = Liquid nozzle type (specify) _____
- B = Atomizing pressure (specify) _____
- C = Solid-batch charge
- D = Solid-continuous charge

☐ Mark (X) this box if you attach a continuation sheet.

8.22 Describe the combustion chamber design parameters for each of the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

☐

Incinerator	Combustion Chamber Temperature (°C)		Location of Temperature Monitor		Residence Time In Combustion Chamber (seconds)	
	Primary	Secondary	Primary	Secondary	Primary	Secondary
1						
2						
3						

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

8.23 Complete the following table for the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

☐

Incinerator	Air Pollution Control Device ¹	Types of Emissions Data Available
1		
2		
3		

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Use the following codes to designate the air pollution control device:

S = Scrubber (include type of scrubber in parenthesis)

E = Electrostatic precipitator

O = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

8.24 Stack Parameters -- Provide the following information on stack parameters for the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).
CBI Photocopy this question and complete it separately for each incinerator.

☐ Incinerator number N/A

Stack height m

Stack inner diameter (at outlet) m

Exhaust temperature °C

Vertical or horizontal stack (V or H)

Annual emissions for the listed substance kg/yr

Height of attached or adjacent building m

Width of attached or adjacent building m

Building cross-sectional area m²

Emission exit velocity m/sec

Average emission rate of exit stream kg/min

Maximum emission rate of exit stream kg/min

Average duration of maximum emission rate of exit stream . min

Frequency of maximum emission rate of exit stream times/yea

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes

No

☐ Mark (X) this box if you attach a continuation sheet.

8.25 Provide the following information on the incinerator feed for the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s). Photocopy this question and complete it separately for each incinerator.

CBI

☐ Incinerator number N/A

Stream ID code(s)

	Residual, as Fired (or residual mixture if residuals are blended)	Incinerator Fuel as Fired (residual(s) plus primary fuel)
Btu content (J/kg)		
Average	_____	_____
Minimum	_____	_____
Feed rate (kg/hr)	_____	_____
Feed rate (J/hr)(kg/hr x J/kg)	_____	_____
Total halogen content (% by weight)		
Average	_____	_____
Maximum	_____	_____
Total ash content (% by weight)		
Average	_____	_____
Maximum	_____	_____
Total water content (% by weight)		
Average	_____	_____
Maximum	_____	_____

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes

No

☐ Mark (X) this box if you attach a continuation sheet.

8.26 Provide the following information on the incinerator feed for the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

CBI

☐

N/A

Incinerator	Stream ID Code	Listed Metal ¹	Total Metal Content (% by weight)	
			Avg.	Max.
1				
2				
3				

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes

No

¹ A listed metal is either an EP toxic metal or a metal that is included on the California List (as defined in section 3004(d)(2) of the Resource Conservation and Recovery Act)

☐ Mark (X) this box if you attach a continuation sheet.

8.27 On-Site Storage, Treatment or Disposal in a Land Treatment Site -- Complete the following table for each on-site land treatment site that is used to store, treat, dispose of the residuals identified in your process block or residual treatment block flow diagram(s).

CBI ☐ Total area actively used for land treatment N/A
Average slope of site (degree incline)
Surface water runoff management¹

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes

No

¹Use the following codes to describe the management practices for surface water runoff:

A = Collection prior to treatment
B = Reapplication to the site

C = Canalization prior to treatment
D = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

8.28 Complete the following table for the residuals identified in your process block or residual treatment block flow diagram(s) that are managed in an on-site land treatment operation.

CBI

☐

N/A

Stream ID Code	Year Land Treatment Initiated	Methods Used to Apply Residuals ¹	Application Rate ²
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes

No

¹Use the following codes to describe the method(s) used to apply residuals to the land treatment site:

- A = Surface spreading or spray irrigation without plow or disc incorporation
- B = Surface spreading or spray irrigation with plow or disc incorporation to a depth of _____ cm
- C = Subsurface injection to a depth of _____ cm
- D = Other (specify) _____

²Use the following codes to designate the application rate:

- A = Daily
- B = Weekly
- C = Monthly
- D = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

8.29 On-Site Storage, Treatment, or Disposal in Surface Impoundments -- Complete the following table for the five largest (by volume) surface impoundments that are used on-site to treat, store, or dispose of the residuals identified in your process block or residual treatment block flow diagram(s).

()

N/A

Impoundment	Total Capacity (liters)	Specify Storage, Disposal or Treatment Type if Applicable ¹	Average Residency Time (days)	SYNTHETIC LINER		CLAY LINER		LEACHATE COLLECTION SYSTEM		Stream ID Code
				No. of Liners	Thickness (cm)	No. of Liners	Thickness (cm)	Installed (Y/N)	Leachate Collected (Y/N)	
1										
2										
3										
4										
5										

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹ Indicate "S" for storage, "D" for disposal, or use the codes provided in Exhibit 8-3 (which follows question 8.13) to designate treatment type

² Indicate the residency time for the surface impoundment's flow through stream. In addition, indicate in parenthesis using the following codes the frequency with which the impoundment is dredged to clear the residue that collects on the bottom:

A - Daily
B - Weekly

C - Monthly
D - Other (specify)

³ Indicate the thickness of each liner

Mark (X) this box if you attach a continuation sheet.

8.30 On-Site Disposal in Landfill Cells -- Complete the following table for the five largest (by volume) landfill cells that are used on-site to dispose of the residuals identified in your process block or residual treatment block flow diagram(s).

CBI

N/A

1 1

Landfill Cell	Quantity per year (kg)	DRAINAGE LAYER		CLAY LINER		SYNTHETIC LINER			Stream ID Code
		Installed	Thickness (cm)	No. of Liners	Thickness (cm)	No. of Liners	Material	Thickness (cm)	
1									
2									
3									
4									
5									

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

Indicate the thickness of each liner

Mark (X) this box if you attach a continuation sheet.

8.31 State the total area actively used on-site for your landfill.

CBI

☐ Total area actively used m

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes

No

8.32 Complete the following table for the five largest landfill cells (by volume) that contain residuals identified in your process block or residual treatment block flow diagram(s).

CBI

☐

Landfill Cell	WORKING COVER		CAP DESIGN CLAY LAYER		LEACHATE COLLECTION SYSTEM	
	Average Use ¹	Thickness (cm)	Installed (Y/N)	Thickness (cm)	Installed (Y/N)	Leachate Collected (Y/N)
1						
2						
3						
4						
5						

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes

No

¹Use the following codes to designate the average use rate:

A = Daily

B = Weekly

C = Monthly

D = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

8.33 On-Site Disposal in Injection Wells -- Complete the following table for the five largest (by volume) injection wells that are used on-site to dispose of the residuals identified in your process block or residual treatment block flow diagram(s).

CBI

☐

Well	Well Type ¹	Quantity Disposed (liters) ²	Stream ID Code
1			
2			
3			
4			
5			

N/A

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Use the following codes to designate well type:

- A = Wells that dispose below deepest groundwater with <10,000 mg/l of total dissolved solids
- B = Wells that dispose into a formation containing groundwater with <10,000 mg/l of total dissolved solids
- C = Wells that dispose above all groundwater
- D = Other (specify) _____

²Indicate the quantity of listed substance disposed

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 9 WORKER EXPOSURE

General Instructions:

Questions 9.03-9.25 apply only to those processes and workers involved in manufacturing or processing the listed substance. Do not include workers involved in residual waste treatment unless they are involved in this treatment process on a regular basis (i.e., exclude maintenance workers, construction workers, etc.).

☐ Mark (X) this box if you attach a continuation sheet.

PART A EMPLOYMENT AND POTENTIAL EXPOSURE PROFILE

9.01 Mark (X) the appropriate column to indicate whether your company maintains records the following data elements for hourly and salaried workers. Specify for each data element the year in which you began maintaining records and the number of years the records for that data element are maintained. (Refer to the instructions for further explanation and an example.)

CBI

()

Data Element	Data are Maintained for:		Year in Which Data Collection Began	Number of Years Records Are Maintained
	Hourly Workers	Salaried Workers		
Date of hire	<u>X</u>	<u>X</u>	<u>1960</u>	<u>30 YRS</u>
Age at hire	<u>X</u>	<u>X</u>	<u>1960</u>	<u>30 YRS</u>
Work history of individual before employment at your facility	<u>UK</u>	<u>US</u>	<u>UK</u>	<u>UK</u>
Sex	<u>X</u>	<u>X</u>	<u>1960</u>	<u>30 YRS</u>
Race	<u>X</u>	<u>X</u>	<u>1960</u>	<u>"</u>
Job titles	<u>X</u>	<u>X</u>	<u>"</u>	<u>"</u>
Start date for each job title	<u>X</u>	<u>X</u>	<u>"</u>	<u>"</u>
End date for each job title	<u>X</u>	<u>X</u>	<u>"</u>	<u>"</u>
Work area industrial hygiene monitoring data	<u>UK</u>	<u>UK</u>	<u>"</u>	<u>"</u>
Personal employee monitoring data	<u>UK</u>	<u>UK</u>	<u>"</u>	<u>"</u>
Employee medical history	<u>X</u>	<u>X</u>	<u>"</u>	<u>"</u>
Employee smoking history	<u>X</u>	<u>X</u>	<u>"</u>	<u>"</u>
Accident history	<u>X</u>	<u>X</u>	<u>"</u>	<u>"</u>
Retirement date	<u>X</u>	<u>X</u>	<u>"</u>	<u>"</u>
Termination date	<u>X</u>	<u>X</u>	<u>"</u>	<u>"</u>
Vital status of retirees	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Cause of death data	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

() Mark (X) this box if you attach a continuation sheet.

9.02 In accordance with the instructions, complete the following table for each activity in which you engage.

CBI

☐

a.	b.	c.	d.	e.
<u>Activity</u>	<u>Process Category</u>	<u>Yearly Quantity (kg)</u>	<u>Total Workers</u>	<u>Total Worker-Hours</u>
Manufacture of the listed substance	Enclosed	<u>N/A</u>	<u> </u>	<u> </u>
	Controlled Release	<u>N/A</u>	<u> </u>	<u> </u>
	Open	<u>N/A</u>	<u> </u>	<u> </u>
On-site use as reactant	Enclosed	<u>N/A</u>	<u> </u>	<u> </u>
	Controlled Release	<u>N/A</u>	<u> </u>	<u> </u>
	Open	<u>N/A</u>	<u> </u>	<u> </u>
On-site use as nonreactant	Enclosed	<u>N/A</u>	<u> </u>	<u> </u>
	Controlled Release	<u>N/A</u>	<u> </u>	<u> </u>
	Open	<u>N/A</u>	<u> </u>	<u> </u>
On-site preparation of products	Enclosed	<u>N/A</u>	<u> </u>	<u> </u>
	Controlled Release	<u>UK ~5.8</u>	<u>4</u>	<u>900</u>
	Open	<u>NA</u>	<u> </u>	<u> </u>

☐ Mark (X) this box if you attach a continuation sheet.

9.03 Provide a descriptive job title for each labor category at your facility that encompasses workers who may potentially come in contact with or be exposed to the listed substance.

CBI

☐

Labor Category

Descriptive Job Title

A

COATER -

B

COATER

C

WIRE ASSEMBLER

D

Group LEADER

E

F

G

H

I

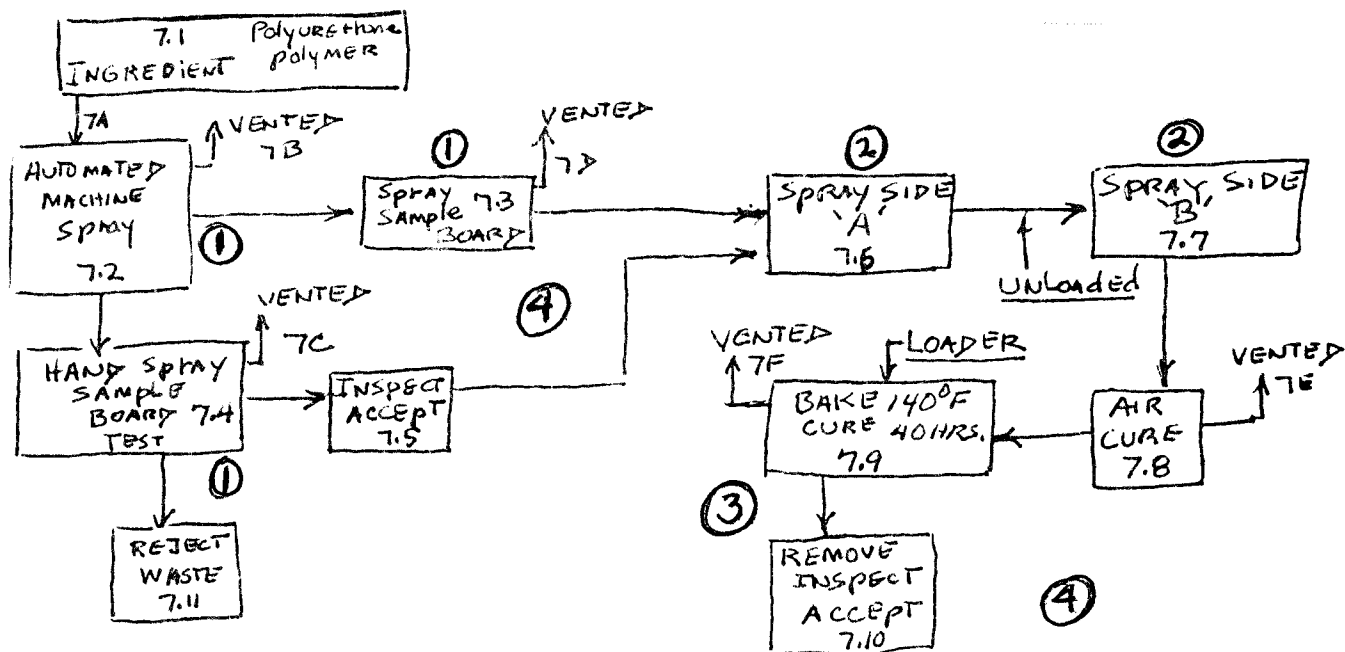
J

☐ Mark (X) this box if you attach a continuation sheet.

9.04 In accordance with the instructions, provide your process block flow diagram(s) and indicate associated work areas.

CBI

[] Process type CONFORMAL COATING



[] Mark (X) this box if you attach a continuation sheet.

9.05 Describe the various work area(s) shown in question 9.04 that encompass workers who may potentially come in contact with or be exposed to the listed substance. Add any additional areas not shown in the process block flow diagram in question 7.01 or 7.02. Photocopy this question and complete it separately for each process type.

CBI

☐ Process type Conformal Coating

Work Area ID

Description of Work Areas and Worker Activities

①

COATER - Spray system

②

COATER - Spray system

③

WIRE ASSEMBLER -

④

Group leader - oversee all processes

5

N/A

6

N/A

7

N/A

8

N/A

9

N/A

10

N/A

☐ Mark (X) this box if you attach a continuation sheet.

9.06 Complete the following table for each work area identified in question 9.05, and for each labor category at your facility that encompasses workers who may potentially come in contact with or be exposed to the listed substance. Photocopy this question and complete it separately for each process type and work area.

☐ Process type CONFORMAL COATING

Work areas ALL

Labor Category	Number of Workers Exposed	Mode of Exposure (e.g., direct skin contact)	Physical State of Listed Substance ¹	Average Length of Exposure Per Day ²	Number of Days per Year Exposed
<u>1</u>	<u>1</u>	<u>AIR</u>	<u>GU</u>	<u>B</u>	<u>150</u>
<u>2</u>	<u>1</u>	<u>AIR</u>	<u>GU</u>	<u>B</u>	<u>150</u>
<u>3</u>	<u>1</u>	<u>AIR</u>	<u>GU</u>	<u>B</u>	<u>150</u>
<u>4</u>	<u>1</u>	<u>AIR</u>	<u>GU</u>	<u>A</u>	<u>150</u>

¹Use the following codes to designate the physical state of the listed substance at the point of exposure:

GC = Gas (condensable at ambient temperature and pressure)	SY = Sludge or slurry
GU = Gas (uncondensable at ambient temperature and pressure; includes fumes, vapors, etc.)	AL = Aqueous liquid
SO = Solid	OL = Organic liquid
	IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

²Use the following codes to designate average length of exposure per day:

A = 15 minutes or less	D = Greater than 2 hours, but not exceeding 4 hours
B = Greater than 15 minutes, but not exceeding 1 hour	E = Greater than 4 hours, but not exceeding 8 hours
C = Greater than one hour, but not exceeding 2 hours	F = Greater than 8 hours

☐ Mark (X) this box if you attach a continuation sheet.

9.07 For each labor category represented in question 9.06, indicate the 8-hour Time Weighted Average (TWA) exposure levels and the 15-minute peak exposure levels. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type CONFORMAL COATING

Work area ALL

<u>Labor Category</u>	<u>8-hour TWA Exposure Level (ppm, mg/m³, other-specify)</u>	<u>15-Minute Peak Exposure Level (ppm, mg/m³, other-specify)</u>
<u>1</u>	<u>UK</u>	<u>UK</u>
<u>2</u>	<u>UK</u>	<u>UK</u>
<u>3</u>	<u>UK</u>	<u>UK</u>
<u>4</u>	<u>UK</u>	<u>UK</u>
<u>N/A</u>		
<u>N/A</u>		
<u>N/A</u>		
<u>N/A</u>		
<u>N/A</u>		
<u>N/A</u>		
<u>N/A</u>		

☐ Mark (X) this box if you attach a continuation sheet.

PART B WORK PLACE MONITORING PROGRAM

9.08 If you monitor worker exposure to the listed substance, complete the following table.

CBI

☐

NA

<u>Sample/Test</u>	<u>Work Area ID</u>	<u>Testing Frequency (per year)</u>	<u>Number of Samples (per test)</u>	<u>Who Samples¹</u>	<u>Analyzed In-House (Y/N)</u>	<u>Number of Years Records Maintained</u>
Personal breathing zone	_____	_____	_____	_____	_____	_____
General work area (air)	_____	_____	_____	_____	_____	_____
Wipe samples	_____	_____	_____	_____	_____	_____
Adhesive patches	_____	_____	_____	_____	_____	_____
Blood samples	_____	_____	_____	_____	_____	_____
Urine samples	_____	_____	_____	_____	_____	_____
Respiratory samples	_____	_____	_____	_____	_____	_____
Allergy tests	_____	_____	_____	_____	_____	_____
Other (specify)	_____	_____	_____	_____	_____	_____
Other (specify)	_____	_____	_____	_____	_____	_____
Other (specify)	_____	_____	_____	_____	_____	_____

¹Use the following codes to designate who takes the monitoring samples:

- A = Plant industrial hygienist
- B = Insurance carrier
- C = OSHA consultant
- D = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

9.09 For each sample type identified in question 9.08, describe the type of sampling and analytical methodology used for each type of sample.

☐

Sample Type

N/A

Sampling and Analytical Methodology

9.10 If you conduct personal and/or ambient air monitoring for the listed substance, specify the following information for each equipment type used.

CBI

☐

Equipment Type¹

N/A

Detection Limit²

Manufacturer

Averaging
Time (hr)

Model Number

¹Use the following codes to designate personal air monitoring equipment types:

- A = Passive dosimeter
- B = Detector tube
- C = Charcoal filtration tube with pump
- D = Other (specify) _____

Use the following codes to designate ambient air monitoring equipment types:

- E = Stationary monitors located within work area
- F = Stationary monitors located within facility
- G = Stationary monitors located at plant boundary
- H = Mobile monitoring equipment (specify) _____
- I = Other (specify) _____

²Use the following codes to designate detection limit units:

- A = ppm
- B = Fibers/cubic centimeter (f/cc)
- C = Micrograms/cubic meter (μm^3)

☐ Mark (X) this box if you attach a continuation sheet.

9.11 If you conduct routine medical tests for monitoring the health effects of exposure to the listed substance, specify the type and frequency of the tests.

CBI

☐

Test Description

N/A

Frequency
(weekly, monthly, yearly, etc.)

☐ Mark (X) this box if you attach a continuation sheet.

PART C ENGINEERING CONTROLS

9.12 Describe the engineering controls that you use to reduce or eliminate worker exposure to the listed substance. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type CONFORMAL COATING

Work area ALL

<u>Engineering Controls</u>	<u>Used (Y/N)</u>	<u>Year Installed</u>	<u>Upgraded (Y/N)</u>	<u>Year Upgraded</u>
Ventilation:				
Local exhaust	<u>Y</u>	<u>UK</u>	<u>N</u>	<u>N/A</u>
General dilution	<u>N</u>		<u>N</u>	<u>N/A</u>
Other (specify)				
Vessel emission controls	<u>N</u>		<u>N</u>	
Mechanical loading or packaging equipment	<u>N</u>		<u>N</u>	
Other (specify)				

☐ Mark (X) this box if you attach a continuation sheet.

9.13 Describe all equipment or process modifications you have made within the 3 years prior to the reporting year that have resulted in a reduction of worker exposure to the listed substance. For each equipment or process modification described, state the percentage reduction in exposure that resulted. Photocopy this question and complete it separately for each process type and work area.

CHI

☐ Process type CONFORMAL COATING
Work area ALL

Equipment or Process Modification	Reduction in Worker Exposure Per Year (%)
<u>NONE</u>	

☐ Mark (X) this box if you attach a continuation sheet.

PART D PERSONAL PROTECTIVE AND SAFETY EQUIPMENT

9.14 Describe the personal protective and safety equipment that your workers wear or use in each work area in order to reduce or eliminate their exposure to the listed substance. Photocopy this question and complete it separately for each process type and work area.

CEI

☐ Process type CONFORMAL COATING
Work area ALL

<u>Equipment Types</u>	<u>Wear or Use (Y/N)</u>
Respirators	<u>N</u>
Safety goggles/glasses	<u>Y</u>
Face shields	<u>N/A</u>
Coveralls	<u>Y</u>
Bib aprons	<u>N/A</u>
Chemical-resistant gloves	<u>Y</u>
Other (specify)	
_____	_____
_____	_____

☐ Mark (X) this box if you attach a continuation sheet.

9.15 If workers use respirators when working with the listed substance, specify for each process type, the work areas where the respirators are used, the type of respirators used, the average usage, whether or not the respirators were fit tested, and the type and frequency of the fit tests. Photocopy this question and complete it separately for each process type.

CBI

☐ Process type N/A CONFORMAL COATING

<u>Work Area</u>	<u>Respirator Type</u>	<u>Average Usage¹</u>	<u>Fit Tested (Y/N)</u>	<u>Type of Fit Test²</u>	<u>Frequency of Fit Tests (per year)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

¹Use the following codes to designate average usage:

A = Daily
 B = Weekly
 C = Monthly
 D = Once a year
 E = Other (specify) _____

²Use the following codes to designate the type of fit test:

QL = Qualitative
 QT = Quantitative

☐ Mark (X) this box if you attach a continuation sheet.

- 9.16 Respirator Maintenance Program -- For each type of respirator used when working with the listed substance, specify the frequency of the maintenance activity, and the person who performs the maintenance activity. Photocopy this question and complete it separately for each respirator type.

Respirator type

Respirator Maintenance Activity

Frequency¹

Person Performing
Activity:

Cleaning

Inspection

Replacement

Cartridge/Canister

Respirator unit

¹Use the following codes to designate the frequency of maintenance activity:

A = After each use

B = Weekly

C = Other (specify)

²Use the following codes to designate who performs the maintenance activity:

A = Plant industrial hygienist

B - Supervisor

C = Foreman

D - Other (specify)

☐ Mark (X) this box if you attach a continuation sheet.

9.17 Respirator Training Program -- Describe your respirator training and re-training programs for each type of respirator used when working with the listed substance. Photocopy this question and complete it separately for each respirator type.

a.

N/A

Respirator type

Type of Training ¹	Number of Workers Trained	Location of Training ²	Length of Training (hrs)	Person Performing Training ³	Frequency
_____	_____	_____	_____	_____	_____

b.

Respirator type

Type of Re-training ¹	Number of Workers Re-trained	Location of Re-Training ²	Length of Re-Training (hrs)	Person Performing Re-Training ³	Frequency
_____	_____	_____	_____	_____	_____

¹Use the following codes to designate the type of training or re-training:

E = Emergency
R = Routine

²Use the following codes to designate the location of training or re-training:

A = Outside plant instruction
B = In-house classroom instruction
C = On-the-job
D = Other (specify) _____

³Use the following codes to designate the person who performs the training or re-training:

A = Plant industrial hygienist
B = Supervisor
C = Foreman
D = Other (specify) _____

⁴Use the following codes to designate the frequency of respirator training or re-training:

A = Monthly
B = Fixed monthly
C = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

- 9.18 For each type of personal protective clothing and safety equipment used when working with the listed substance, indicate whether you have conducted a permeation test on the clothing or equipment for the listed substance.

Clothing and Equipment

Permeation Tests Conducted
(Y/N)

Coveralls

N

Bib apron

N

Gloves

N

Other (specify)

☐ Mark (X) this box if you attach a continuation sheet.

PART E WORK PRACTICES

9.19 Describe all of the work practices and administrative controls used to reduce or eliminate worker exposure to the listed substance (e.g., restrict entrance only to authorized workers, mark areas with warning signs, insure worker detection and monitoring practices, provide worker training programs, etc.). Photocopy this question and complete it separately for each process type and work area.

CBI

☐

Process type NA CONFORMAL COATING
 Work area ALL

9.20 Indicate (X) how often you perform each housekeeping task used to clean up routine leaks or spills of the listed substance. Photocopy this question and complete it separately for each process type and work area.

Process type CONFORMAL COATING
 Work area ALL

<u>Housekeeping Tasks</u>	<u>Less Than Once Per Day</u>	<u>1-2 Times Per Day</u>	<u>3-4 Times Per Day</u>	<u>More Than 4 Times Per Day</u>
Sweeping	_____	<u>X</u>	_____	_____
Vacuuming	_____	_____	_____	_____
Water flushing of floors	_____	_____	_____	_____
Other (specify)	_____	_____	_____	_____
<u>WET SWEEPING</u>	<u>X</u>	_____	_____	_____

☐ Mark (X) this box if you attach a continuation sheet.

9.21 Do you have a written medical action plan for responding to routine or emergency exposure to the listed substance?

Routine exposure

Yes1

No (2)

Emergency exposure

Yes1

No (2)

If yes, where are copies of the plan maintained?

Routine exposure: _____

Emergency exposure: _____

9.22 Do you have a written leak and spill cleanup plan that addresses the listed substance? Circle the appropriate response.

Yes1

No (2)

If yes, where are copies of the plan maintained? _____

Has this plan been coordinated with state or local government response organizations? Circle the appropriate response.

Yes1

No2

9.23 Who is responsible for monitoring worker safety at your facility? Circle the appropriate response.

Plant safety specialist (1)

Insurance carrier2

OSHA consultant3

Other (specify) _____4

☐ Mark (X) this box if you attach a continuation sheet.

9.24 Who is responsible for safety and health training at your facility? Circle the appropriate response.

N/A

Plant safety specialist 1
Insurance carrier 2
OSHA consultant 3
Other (specify) _____ 4

9.25 Who is responsible for the medical program at your facility? Circle the appropriate response.

N/A

Plant physician 1
Consulting physician 2
Plant nurse 3
Consulting nurse 4
Other (specify) _____ 5

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 10 ENVIRONMENTAL RELEASE

General Instructions:

Complete Part E (questions 10.23-10.35) for each non-routine release involving the listed substance that occurred during the reporting year. Report on all releases that are equal to or greater than the listed substance's reportable quantity value, RQ, unless the release is federally permitted as defined in 42 U.S.C. 9601, or is specifically excluded under the definition of release as defined in 40 CFR 302.3(22). Reportable quantities are codified in 40 CFR Part 302. If the listed substance is not a hazardous substance under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and thus, does not have an RQ, then report releases that exceed 2,270 kg. If such a substance however, is designated as a CERCLA hazardous substance, then report those releases that are equal to or greater than the RQ. The facility may have answered these questions or similar questions under the Agency's Accidental Release Information Program and may already have this information readily available. Assign a number to each release and use this number throughout this part to identify the release. Releases over more than a 24-hour period are not single releases, i.e., the release of a chemical substance equal to or greater than an RQ must be reported as a separate release for each 24-hour period the release exceeds the RQ.

For questions 10.25-10.35, answer the questions for each release identified in question 10.23. Photocopy these questions and complete them separately for each release.

PART A GENERAL INFORMATION

10.01 Where is your facility located? Circle all appropriate responses.

CBI

- ☐ Industrial area ①
- Urban area 2
- Residential area 3
- Agricultural area 4
- Rural area 5
- Adjacent to a park or a recreational area 6
- Within 1 mile of a navigable waterway ⑦
- Within 1 mile of a school, university, hospital, or nursing home facility 8
- Within 1 mile of a non-navigable waterway 9
- Other (specify) _____ 10

☐ Mark (X) this box if you attach a continuation sheet.

10.02 Specify the exact location of your facility (from central point where process unit is located) in terms of latitude and longitude or Universal Transverse Mercader (UTM) coordinates.

Latitude 73° 15' 0

Longitude 44° 30' 0

UTM coordinates Zone UK, Northing UK, Easting UK

10.03 If you monitor meteorological conditions in the vicinity of your facility, provide the following information.

NA

Average annual precipitation inches/yea

Predominant wind direction

10.04 Indicate the depth to groundwater below your facility. NA

Depth to groundwater meters

10.05 For each on-site activity listed, indicate (Y/N/NA) all routine releases of the listed substance to the environment. (Refer to the instructions for a definition of: CBI Y, N, and NA.)

☐

On-Site Activity

Environmental Release

	<u>Air</u>	<u>Water</u>	<u>Land</u>
Manufacturing	<u>N</u>	<u>N</u>	<u>N</u>
Importing	<u>N</u>	<u>N</u>	<u>N</u>
Processing	<u>N</u>	<u>N</u>	<u>N</u>
Otherwise used	<u>N</u>	<u>N</u>	<u>N</u>
Product or residual storage	<u>N</u>	<u>N</u>	<u>N</u>
Disposal	<u>N</u>	<u>N</u>	<u>N</u>
Transport	<u>N</u>	<u>N</u>	<u>N</u>

☐ Mark (X) this box if you attach a continuation sheet.

10.06 Provide the following information for the listed substance and specify the level of precision for each item. (Refer to the instructions for further explanation and an example.)

CBI

☐

Quantity discharged to the air	<u>UK</u>	kg/yr = <u> </u>
Quantity discharged in wastewaters	<u>NA</u>	kg/yr = <u> </u>
Quantity managed as other waste in on-site treatment, storage, or disposal units	<u>N/A</u>	kg/yr = <u> </u>
Quantity managed as other waste in off-site treatment, storage, or disposal units	<u>N/A</u>	kg/yr = <u> </u>

☐ Mark (X) this box if you attach a continuation sheet.

10.07 Complete the following table for each process stream containing the listed substance as identified in your process block or residual treatment block flow diagram(s). Photocopy this question and complete it separately for each process type.

CBI

☐

Process type

CONFORMAL COATING

Process Stream ID Code	Media Affected ¹	Average Amount of Listed Substance Released ²	Number of Batches/Year	Days of Operation Year
7B→7E	UK	UK	260	150

¹Use the following codes to designate the media affected:

- A = Air
- B = Land
- C = Groundwater
- D = POTW
- E = Navigable waterway
- F = Non-navigable waterway
- G = Other (specify) _____

²Specify the average amount of listed substance released to the environment and use the following codes to designate the units used to measure the release:

- A = kg/day
- B = kg/batch

☐ Mark (X) this box if you attach a continuation sheet.

10.08 Describe the control technologies used to minimize release of the listed substance for each process stream containing the listed substance as identified in your process block or residual treatment block flow diagram(s). Photocopy this question and complete it separately for each process type.

CBI

☐ Process type Conformal COATING

<u>Stream ID Code</u>	<u>Control Technology</u>	<u>Percent Efficiency</u>
	N/A	

☐ Mark (X) this box if you attach a continuation sheet.

PART B RELEASE TO AIR

- 10.09 Point Source Emissions -- Identify each emission point source containing the listed substance in terms of a Stream ID Code as identified in your process block or residual treatment block flow diagram(s), and provide a description of each point source. Do not include raw material and product storage vents, or fugitive emission sources (e.g., equipment leaks). Photocopy this question and complete it separately for each process type.

CBI

☐

Process type

Con Formal COATING

Point Source
ID Code

N/A

Description of Emission Point Source

☐ Mark (X) this box if you attach a continuation sheet.

10.10 Emission Characteristics - - Characterize the emissions for each Point Source ID Code identified in question 10.09 by completing the following table.

CR1

10

$$w/A$$
[illegible]

Use the following codes to designate physical state at the point of release:

G = Gas; V = Vapor; P = Particulate; A = Aerosol; 0 = Other (specify)

²Frequency of emission at any level of emission

Duration of emission at any level of emission

Average Emission Factor -- Provide estimated (± 25 percent) emission factor (kg of emission per kg of production of listed substance)

☐ Mark (X) this box if you attach a continuation sheet.

()

$$N/A$$
[illegible]

H = Horizontal
V = Vertical

115

10.12 If the listed substance is emitted in particulate form, indicate the particle size distribution for each Point Source ID Code identified in question 10.09. Photocopy this question and complete it separately for each emission point source.

CBI

☐

N/A

Point source ID code

Size Range (microns)

Mass Fraction (% ± % precision)

< 1

≥ 1 to < 10

≥ 10 to < 30

≥ 30 to < 50

≥ 50 to < 100

≥ 100 to < 500

≥ 500

Total = 100%

☐ Mark (X) this box if you attach a continuation sheet.

PART C FUGITIVE EMISSIONS

10.13 Equipment Leaks -- Complete the following table by providing the number of equipment types listed which are exposed to the listed substance and which are in service according to the specified weight percent of the listed substance passing through the component. Do this for each process type identified in your process block or residual treatment block flow diagram(s). Do not include equipment types that are not exposed to the listed substance. If this is a batch or intermittently operated process, give an overall percentage of time per year that the process type is exposed to the listed substance. Photocopy this question and complete it separately for each process type.

CBI

☐

Process type

Con Formal Coating

Percentage of time per year that the listed substance is exposed to this process type

N/A

Equipment Type	Number of Components in Service by Weight Percent of Listed Substance in Process Stream					Greater than 99%
	Less than 5%	5-10%	11-25%	26-75%	76-99%	
Pump seals ¹						
Packed						
Mechanical						
Double mechanical ²						
Compressor seals ¹						
Flanges						
Valves						
Gas ³						
Liquid						
Pressure relief devices ⁴ (Gas or vapor only)						
Sample connections						
Gas						
Liquid						
Open-ended lines ⁵ (e.g., purge, vent)						
Gas						
Liquid						

¹List the number of pump and compressor seals, rather than the number of pumps or compressors

10.13 continued on next page

☐

Mark (X) this box if you attach a continuation sheet.

10.13 (continued)

² If double mechanical seals are operated with the barrier (B) fluid at a pressure greater than the pump stuffing box pressure and/or equipped with a sensor (S) that will detect failure of the seal system, the barrier fluid system, or both, indicate with a "B" and/or an "S", respectively

3 Conditions existing in the valve during normal operation

*Report all pressure relief devices in service, including those equipped with control devices

* Lines closed during normal operation that would be used during maintenance operations

10.14 Pressure Relief Devices with Controls -- Complete the following table for those pressure relief devices identified in 10.13 to indicate which pressure relief devices in service are controlled. If a pressure relief device is not controlled, enter "None" under column c.

CBI

()

[illegible]

¹ Refer to the table in question 10.13 and record the percent range given under the heading entitled "Number of Components in Service by Weight Percent of Listed Substance" (e.g., <5%, 5-10%, 11-25%, etc.)

²The EPA assigns a control efficiency of 100 percent for equipment leaks controlled with rupture discs under normal operating conditions. The EPA assigns a control efficiency of 98 percent for emissions routed to a flare under normal operating conditions

☐ Mark (X) this box if you attach a continuation sheet.

10.15 Equipment Leak Detection -- If a formal leak detection and repair program is in place, complete the following table regarding those leak detection and repair procedures. Photocopy this question and complete it separately for each process type.

CBI

N/A

☐ Process type

Equipment Type	Leak Detection Concentration (ppm or mg/m ³) Measured at Inches from Source	Detection Device	Frequency of Leak Detection (per year)	Repairs Initiated (days after detection)	Repairs Completed (days after initiated)
Pump seals					
Packed					
Mechanical					
Double mechanical					
Compressor seals					
Flanges					
Valves					
Gas					
Liquid					
Pressure relief devices (gas or vapor only)					
Sample connections					
Gas					
Liquid					
Open-ended lines					
Gas					
Liquid					

¹Use the following codes to designate detection device:

POVA = Portable organic vapor analyzer

FPM = Fixed point monitoring

0 = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

10.16 Raw Material, Intermediate and Product Storage Emissions - Complete the following table by providing the information on each liquid raw material, intermediate, and product storage vessel containing the listed substance as identified in your process block or residual treatment block flow diagram(s).

ON

□

Vessel Type	Floating Roof of Stored Materials ²	Throughput (liters per year)	Vessel Filling Rate (gpm)	Vessel Filling Duration (min)	Vessel Inner Diameter (m)	Vessel Height (m)	Vessel Volume (m ³)	Operating Volume (m ³)	Design Flow Rate (m ³ /hr)	Vent Diameter (cm)	Control Efficiency (%)	Basis for Estimate ⁶

N/A

¹Use the following codes to designate vessel type:

- P - Fixed roof
- CIF - Contact Internal Floating roof
- NCIF - Noncontact Internal Floating roof
- EFR - External Floating roof
- P - Pressure vessel (Indicate pressure rating)
- H - Horizontal
- U - Underground

²Use the following codes to designate floating roof seals:

- MS1 - Mechanical shoe, primary
- MS2 - Shoe-mounted secondary
- MS2R - Rim-mounted, secondary
- LM1 - Liquid-mounted resilient filled seal, primary
- LM2 - Rim-mounted shield
- LMW - Weather shield
- VM1 - Vapor mounted resilient filled seal, primary
- VM2 - Rim-mounted secondary
- VMW - Weather shield

³Indicate weight percent of the listed substance. Include the total volatile organic content in parenthesis

⁴Other than Floating roofs

⁵Gas/vapor flow rate the emission control device was designed to handle (specify flow rate units)

⁶Use the following codes to designate basis for estimate of control efficiency:

- C - Calculations
- S - Sampling

□ Mark (X) this box if you attach a continuation sheet.

PART D RELEASE TO WATER

10.17 National Pollutant Discharge Elimination System (NPDES) Discharges -- Complete the following information for each body of water NPDES discharges are discharged into.
CBI If discharges are to more than one body of water, photocopy this question and complete it separately for each discharge.

☐ Discharge source (stream ID code) N/A

Is discharge to a moving or standing body of water? Circle the appropriate response.

Moving body of water :
Standing body of water :

Estimated average base flow (moving) 1/day
Estimated average volume (standing) 1
Average volume of discharge from facility 1/day
..... days/year
Maximum volume of discharge from facility 1/day
..... days/year
Average concentration of listed substance in discharge mg/l or ppm
Maximum concentration of listed substance in discharge mg/l or ppm

10.18 Publicly Owned Treatment Works (POTW) -- Complete the following information for discharges containing the listed substance which are discharged to a POTW from your facility.

CBI

☐ Discharge source (stream ID code) N/A

Average volume of discharge from facility ... 1/day
..... days/year
Maximum volume of discharge from facility 1/day
..... days/year
Average concentration of listed substance in discharge mg/l or ppm
Maximum concentration of listed substance in discharge mg/l or ppm

☐ Mark (X) this box if you attach a continuation sheet.

10.19 Nonpoint Sources -- Complete the following information for each nonpoint discharge source. Examples of nonpoint sources include stormwater runoff, waste pile runoff, and runoff from product or raw material storage areas or other sources that contain the listed substance and may be discharged to surface water. Exclude NPDES or POTW discharges. If discharges are to more than one body of water, photocopy this question and complete it separately for each discharge.

CBI

☐

Discharge source (stream ID code)

N/A

Is discharge to a moving or standing body of water? Circle the appropriate response.

Moving body of water 1

Standing body of water 2

Estimated average base flow (moving) 1/day

Estimated average volume (standing) 1

Average volume of discharge from facility 1/day

..... days/year

Maximum volume of discharge from facility 1/day

..... days/year

Average concentration of listed substance in discharge mg/l or ppb

Maximum concentration of listed substance in discharge mg/l or ppb

☐ Mark (X) this box if you attach a continuation sheet.

10.20 Releases to Soils -- Complete the following information for up to three random soil core samples that were taken and analyzed for the listed substance during the reporting year. Report the concentrations of the listed substance determined by soil core monitoring studies/tests. Specify the distance from the facility that soil cores were taken, and indicate the soil type and sample depth of the soil cores. (Refer to the glossary for definitions of soil textures given in footnote 2.)

CBI

☐

Sample	Concentration (ug/kg) of Listed Substance (\pm % precision)	Distance from Plant (m) ¹	Soil Texture ²	Sample Depth
1			N/A	
2				
3				

¹Use the following code to designate if the sample was taken within the facility's boundary:

OS = On-site

²Use the following codes to designate soil texture:

A = Sand	G = Sandy clay loam
B = Loamy sand	H = Clay loam
C = Sandy loam	I = Silty clay loam
D = Loam	J = Sandy clay
E = Silty loam	K = Silty clay
F = Silt	L = Clay

10.21 Releases to Groundwater -- Complete the following information for up to three random samples of groundwater from monitoring wells during the reporting year that were analyzed for the listed substance. The average and maximum concentration refers to the listed substance.

CBI

☐

Sample	Distance from Plant (m) ¹	Well Depth (m)	Average Concentration (mg/l) (\pm % precision)	Maximum Concentration (mg/l) (\pm % precision)
1			N/A	
2				
3				

¹Use the following code to designate if the sample was taken within the facility's boundary:

OS = On-site

☐ Mark (X) this box if you attach a continuation sheet.

10.22 Releases to Drinking Water -- Complete the following table for up to three samples from drinking water wells monitored during the reporting year. The average and maximum concentration refers to the listed substance.

CBI

()

N/A

<u>Well</u>	<u>Well Depth (m)</u>	<u>Distance from Plant (m)¹</u>	<u>Average Concentration (mg/l) (± % precision)</u>	<u>Maximum Concentration (mg/l) (± % precision)</u>
<u>1</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>2</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>3</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

¹Use the following code to designate if the sample was taken within the facility's boundary:

OS = On-site

() Mark (X) this box if you attach a continuation sheet.

PART E NON-ROUTINE RELEASES

10.23 Indicate the date and time when the release occurred and when the release ceased or was stopped. If there were more than six releases, attach a continuation sheet and list all releases.

Release	Date Started	Time (am/pm)	Date Stopped	Time (am/pm)
1				
2				
3				
4				
5				
6				

10.24 Specify the weather conditions at the time of each release.

Release	Wind Speed (km/hr)	Wind Direction	Humidity (%)	Temperature (°C)	Precipitation (Y/N)
1					
2					
3					
4					
5					
6					

☐ Mark (X) this box if you attach a continuation sheet.

- 10.25 Complete the following information for each media into which the listed substance was released. Any volatile substance that was released to land, but that was expected to volatilize, should be listed as a release to air.

Release No.

N/A

Media	Quantity (kg)	Method of Release	Migration Beyond Boundaries (Y/N)	Quantity Migrate (kg)
Land				
Air				
Groundwater				
Surface water				

- 10.26 Specify the physical state and concentration of the listed substance at the time and point of release.

N/A

Release No.

Point of release

Physical state

Concentration (%)

☐ Mark (X) this box if you attach a continuation sheet.

10.27 Circle all appropriate responses relating to the cause and the effects of the release.

Release No. N/A

Cause of Release

Equipment failure 1
Operator error 2
Bypass condition 3
Upset condition 4
Fire 5
Unknown 6
Other (specify) 7

Results of Release

Spill 1
Vapor release 2
Explosion 3
Fire 4
Other (specify) 5

☐ Mark (X) this box if you attach a continuation sheet.

10.28 Specify which authorities were notified of the release.

Release No.

N/A

a. Federal

Agency

Office

Contact Person

Address

Street

City

State

Telephone Number

Date Notified

Mo.

Day

Year

Time Notified

am/pm

b. State

Agency

Office

Contact Person

Address

Street

City

State

Telephone Number

Date Notified

Mo.

Day

Year

Time Notified

am/pm

10.28 continued below

☐ Mark (X) this box if you attach a continuation sheet.

10.28 (continued)

c. Local

Agency

Office

Contact Person

Address

Street

City

State

Telephone Number

Date Notified

Time Notified

Mo.

Day

Year

am/pm

10.29 For each of the proximities listed below, indicate whether the population living within that proximity was notified of, or evacuated because of the release. Specify who notified the population, the number of people evacuated, if any, and the date and time of day the evacuation began.

Release No.

N/A

Proximity to the Release	Notified of Release (Y/N)	Notifying Person	Notifying Person's Telephone Number	Area Evacuated (Y/N)	Number of Persons Evacuated	Date and Time of Day Evacuation Began
1/4 mile						
1/2 mile						
1 mile						
Other (specify)						

☐ Mark (X) this box if you attach a continuation sheet.

10.30 Specify the number of personal injuries or casualties resulting from the release.

Release No.

Number of injuries to facility employees 11

Number of injuries to general population

Number of deaths to facility employees

Number of deaths to general population

10.31 Indicate who conducted cleanup activities, and the dates over which the cleanup was performed.

Release No.

[illegible][illegible]

City

State Zip

Telephone Number () () () - () () () - () () ()

Telephone Number [] [] [] []
Date Cleanup Initiated Mo. Year

Date Cleanup Completed (or expected) [] [] Mo. [] [] Year

10.32 Briefly describe the release prevention practices and policies (backup systems, containment systems, training programs, etc.) in place at the facility at the time the release occurred.

Release No. /A

☐ Mark (X) this box if you attach a continuation sheet.

- 10.33 Indicate which of the prevention practices and policies listed in question 10.32 were ineffective in preventing the release from reaching the environment.

Release No. N/A

- 10.34 Describe all repairs and/or preventive measures (management practices, operational changes, etc.) made to equipment or operations as a result of the release.

Release No. N/A

- 10.35 Describe additional preventive measures that will be taken to minimize the possibilities of recurrence.

Release No. N/A

☐ Mark (X) this box if you attach a continuation sheet.

APPENDIX I: List of Continuation Sheets

Attach continuation sheets for sections of this form and optional information after this page. In column 1, clearly identify the continuation sheet by listing the question number to which it relates. In column 2, enter the inclusive page numbers of the continuation sheet for each question number.

Question Number
(1)

Continuation
Sheet
Page Numbers
(2)

Sec. 4 Physical/CHEMICAL Properties
MSDS

134-137

☒ Mark (X) this box if you attach a continuation sheet.

APPENDIX II: Substantiation Form and Instructions
to Accompany Claims of Confidentiality Under the
Comprehensive Assessment Information Rule (CAIR)

If you assert one or more claims of confidentiality for information submitted on a Comprehensive Assessment Information Rule (CAIR) form, please answer, pursuant to 40 CFR 740.219, all the following questions in the space provided. Type all responses. If you need more space to answer a particular question, please use additional sheets. If you use additional sheets, be sure to include the section, number, and (if applicable) subpart of the question being answered, and write your facility's name and Dun & Bradstreet Number in the lower right-hand corner of each sheet. A completed copy of this form must accompany all submissions containing one or more claims of confidentiality. Failure to do so will result in the waiver of your claim of confidentiality.

EPA has identified six information categories as those which encompass all claims of confidentiality. These are: Submitter identity (h); Substance identity (i); Volume manufactured, imported, or processed (j); Use information (k); Process information (l); and Other information (m). Respondents who assert a CBI claim on the reporting form must mark the letter(s) (h through m) that represent(s) the appropriate category(ies) of confidentiality in the box adjacent to the question, and answer the questions in this form.

Respondents who assert a CBI claim for information submitted under CAIR must also provide EPA with sanitized and unsanitized versions of their submissions. The unsanitized version must be complete and contain all information being claimed as confidential. The sanitized copy must contain only information not claimed as confidential. EPA will place the second copy of the submission in the public file. Failure to submit the second copy of the form at the time the respondent submits the reporting form containing confidential information or after receipt of a notice from EPA thereafter will result in a waiver of the respondent's claim of confidentiality.

Please indicate the CAS Registry Number (if known) or chemical name (if the CAS Registry Number is not known) for the substance that is the subject of this form:

If you --- rep--- a tradename, please provide the tradename for the substance that the subject of this form:

Does this form contain CBI? ☐ Yes ☐ No

If the answer to this question is yes, you must bracket the text claimed as CBI. Any unbracketed information may be placed in the public file.

☐ Mark (X) this box if you attach a continuation sheet.

C O N A P I N C .
 1405 Buffalo St.
 Olean, New York 14760
 716/372-9650

===== MATERIAL SAFETY DATA SHEET =====

Note: This form is to be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Blank spaces are not permitted.

===== I. IDENTIFICATION =====

Trade Name: Conathane Ce-1155 Part A Date: 03/05/87
 Chemical Name, common name: Complex Mixture; Toluene Diisocyanate based adduct (3*31)

===== II. HAZARDOUS INGREDIENTS =====

Chemical Names	CAS No.	%	ACGIH (TLV)	OSHA (PEL)	Other
Xylene	1330-20-7	30%-15%	100ppm	STEL 100 PPM	ND
Propylene glycol monomethyl ether acetate (PMA)	108-25-6	40%-30%	ND	ND	ND

— Toluene diisocyanate
 584-84-9 NA .005ppm TWA .02ppm ceiling
 Free monomer content maximum of 0.7% based on resin solids.

The Remaining Mixture is Considered Non-Hazardous.

===== III. PHYSICAL DATA =====

Boiling Point: ND Specific Gravity (H₂O=1): 1.13
 Vapor Pressure, mm Hg: PMA 3.7mm Hg @ 20°C; Xylene: 3mm Hg @ 25°C
 Vapor Density (air=1): Xylene 3.7
 Melting Pt./Range: NA Evaporation rate (Ether=1): ND
 Solubility in Water: Reacts Physical State: Liquid
 Percent volatile by volume: 40% by weight
 Appearance and Odor: Clear yellow viscous liquid, solvent odor

===== IV. FIRE AND EXPLOSION DATA =====

Flash Point, F (Method): 82F Setflash
 Flammable Limits: (PMA) LEL: 1.3 UEL: 13.1
 Extinguishing Materials:
 XX-Dry Chemical -XX-Carbon Dioxide
 XX--Foam ----Other:
 Special Firefighting Procedures:
 Full emergency equipment with self contained breathing apparatus should be worn by fire fighters. During a fire irritating and highly toxic gases and smoke are present from decomposition/combustion. Isolate from heat, electrical equipment, sparks and open flame.

USUAL FIRE AND EXPLOSION HAZARDS:

Closed container may explode when exposed to extreme heat or burst when contaminated with water (CO₂ evolved). Solvent vapors may be heavier than air. Under conditions of stagnant air, vapors may build up and travel along the ground to an ignition source which may result in a flash back to the source of the vapors.

===== V. HEALTH HAZARD INFORMATION =====
 ACUTE TOXICITY (Routes of entry)

Inhalation:

Information on PMA: In short term, repeated inhalation exposure to nearly saturated vapor (4000ppm), test animals showed a slight effect on kidneys or kidney function. Prolonged contact with intact and abraded rabbit skin showed no irritation and potential to produce systemic toxicity via skin absorption is low. Skin sensitization tests in guinea pigs were negative.

Ingestion:

Oral LD50 based on 100% solid polymeric resin > 25 g/Kg (Rat)

Eye Contact:

(Based on 100% solid polymeric resin.) Mechanical irritation observed.

Skin Contact:

(Based on 100% solid polymeric resin.) Dermal LD50 greater than 5.5 g/Kg (Rabbit).

Skin Absorption:

ND

 CHRONIC TOXICITY

Carcinogenicity:

XXX-Yes: -XXX--NTP -ND---IARC ND--Federal OSHA

In a draft of a lifetime bioassay, the National Toxicology Program reported that TDI caused an increase in the number of tumors in exposed rats over those counted in non-exposed rats. The TDI was administered by gavage, where TDI was introduced into the stomach through a tube. In lifetime inhalation studies conducted by Hazelton Labs for the International Isocyanate Institute, TDI did not demonstrate carcinogenic activity in rats or mice.

Target Organ Affected:

Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage.

Overexposure to Xylene has been found to cause anemia, liver abnormalities, kidney damage, eye damage and cardiac abnormality.

Overexposure to Methoxy Propanol Acetate (PMA) has been associated with injury to the liver and kidney. Eye contact may cause corneal injury.

 Effects of Overexposure:

Inhalation:

Irritation of the nose, throat and eyes, dizziness, weakness, fatigue, nausea, headache, possibly narcosis and asphyxiation. May be accompanied by coughing, choking or labored breathing. Asthma like breathing may be a delayed reaction. Vapor, spray mist or liquid causes skin and eye discomfort due to defatting action. Isocyanates can cause lung sensitization. Allergic respiratory reaction may occur in sensitized individuals when exposure to TDI is below the TLV. Can cause lung injury.

Skin Contact:

Prolonged and repeated contact with skin can cause dermatitis and possibly skin sensitization.

Ingestion:

May cause irritation of the mouth and esophagus.

Eye contact:

Expected to be very irritating.

Medical Conditions Aggravated By Exposure
Dermatitis.

FIRST AID: EMERGENCY PROCEDURES**Eye Contact:**

Flush with clean luke warm water (low pressure) for at least 15 minutes, occasionally lifting the eyelids. Obtain medical attention.

Skin Contact:

Remove contaminated clothing. Wash affected skin areas with soap and water. Wash contaminated clothing thoroughly before re-use.

Inhalation:

Move to an area free from risk of further exposure. Administer oxygen or artificial respiration as needed. Obtain medical attention.

Ingested:

Consult physician. DO NOT INDUCE VOMITING.

Recommendations to Physician:

ND

===== VI. REACTIVITY DATA =====

Stability: --XX-Stable -----Unstable

Conditions to Avoid:

Contact with moisture and other materials which react with isocyanates. Temperatures which exceed the maximum storage temperature.

Incompatibility (materials to avoid):
Avoid contact with water, alcohols, amines, strong bases, metal compounds or surface active materials. Strong oxidizers.

Hazardous Decomposition Products

Carbon dioxide, carbon monoxide, trace of hydrogen cyanide, oxides of nitrogen.

Hazardous Polymerization: --May Occur XX-Will not occur

Conditions to avoid:

None

===== VII. SPILL, LEAK AND DISPOSAL PROCEDURES =====

Steps to be taken if material is released or spilled:

Consult section VIII for proper protective equipment.

Evacuate non-essential personnel. Remove all sources of ignition. Ventilate the area. Dike or impound spilled material and control further spillage if feasible. Notify appropriate authorities if necessary. Cover spill with sawdust, vermiculite, Fuller's earth or other absorbent material; pour liquid decontaminant over spillage and allow to react at least ten minutes; collect material in OPEN containers and add further amounts of decontamination

solution. Remove containers to safe place. Cover loosely. Wash down area with liquid decontaminant and flush spill area with water.

Decontamination solutions: Ammonium hydroxide (0-10%), detergent (2-5%) and balance water; or solution of Union Carbide's Tergitol TMN-10 (20%) and water (80%).

Waste Disposal Method:

Dispose of according to any Local, State and Federal Regulations. Empty containers must be handled with care due to product residue and flammable solvent vapor. Decontaminate containers prior to disposal.

===== VIII. SPECIAL HANDLING INFORMATION =====

Respiratory Protection:

Follow OSHA regulation 29CFR1910.134 for respirator use. Use air-purifying respirator that respirator supplier has demonstrated to be effective for solvent and isocyanate vapors, when concentrations exceed the TLV up to the maximum level at which the respirator is effective. Where overspray is present, or if the concentration of solvents or isocyanates is not known or exceeds the level at which the air-purifying respirator is effective, a positive pressure air-supplied respirator (TC19C NIOSH/MSHA) is recommended.

Ventilation:

Designed and maintained to provide volume and pattern to prevent vapor concentration in excess of TLV or LEL.

Protective Gloves: Neoprene rubber gloves

Eye Protection:

Goggles or full face shield.

Other Protective Clothing or Equipment:

Eye wash station and safety shower should be available.

Work Practices, hygienic practices

Use good industrial hygiene. Wash after handling the material

===== IX SPECIAL PRECAUTIONS =====

Handling and Storage:

Closed containers may explode when exposed to extreme heat. Store between 32 F(0C)/122F(50C). Store in tightly closed container and protect from moisture and foreign materials. At maximum storage temperature noted, material may slowly polymerize without hazard. Ideal storage temperature range is 50-81 F (10-27C).

Other Precautions:

Avoid sparks and open flames.

=====

Name(print): George C. Karpin !This formulation is subject
 Signature: *George C. Karpin* !to change without notice.
 Title: Toxicological Coordinator !In case of accident use the
 Date of last revision 3/5/87 !the phone number provided.

To the best of our knowledge, the information contained herein is accurate and meets all State and Federal guidelines. However, CONAP INC. does not assume any liability whatsoever for the accuracy or completeness of

the information contained herein. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of the suitability of any material is the sole responsibility of the user.

//

Date approved: 8/5/87 Approved: [Signature]

ND=Not Determined

NA=Not Applicable

Date Approved: 8/5/87 Approved: [Signature]

363 (3/86)

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